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The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

**DEPARTMENT OF LABOR
AND INDUSTRIES**

FOR THE

Year Ending November 30, 1934



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The Commonwealth of Massachusetts

DEPARTMENT OF LABOR AND INDUSTRIES

OFFICIALS

EDWIN S. SMITH, FRAMINGHAM, COMMISSIONER.

MARY E. MEEHAN, BOSTON, Assistant Commissioner.

JOHN L. CAMPOS, FALL RIVER, Associate Commissioner.

EDWARD FISHER, LOWELL, Associate Commissioner.

RAYMOND V. McNAMARA, HAVERHILL, Associate Commissioner.

HEADS OF DIVISIONS AND BRANCHES

Board of Conciliation and Arbitration:

EDWARD FISHER. JOHN L. CAMPOS. RAYMOND V. McNAMARA.

Division of Industrial Safety: JOHN P. MEADE, *Director.*

JOSEPH MONETTE, *Counsel.*

Division of Minimum Wage: MARY E. MEEHAN, *Acting Director.*

EDWARD FISHER. JOHN L. CAMPOS. RAYMOND V. McNAMARA.

Division on the Necessaries of Life: RALPH W. ROBART, *Director.*

Division of Public Employment Offices: M. JOSEPH McCARTIN, *Director.*

Division of Standards: JOHN P. McBRIDE, *Director.*

Division of Statistics: ROSWELL F. PHELPS, *Director.*

MARGARET SHEA, *Statistician for Manufacturers.*

LESTER E. ARCHIBALD, *Statistician for Labor.*

Division of Occupational Hygiene: MANFRED BOWDITCH, *Director.*

REPORT OF THE COMMISSIONER OF LABOR AND INDUSTRIES

To the General Court:

The fifteenth annual report of the Department of Labor and Industries for the year ending November 30, 1934, is herewith submitted.

ADMINISTRATION

On July 8, 1934, Mr. Edwin S. Smith resigned from his position as Commissioner of Labor and Industries to take up his duties as a member of the National Labor Relations Board at Washington. Following his resignation the Governor with the approval of the Council appointed Miss Mary E. Meehan, the Assistant Commissioner, as Acting Commissioner to serve until Mr. Smith's successor was appointed.

Mr. Smith was appointed Commissioner of Labor and Industries by his Excellency, Governor Ely, on December 2, 1931.

CO-OPERATION WITH FEDERAL AGENCIES

Codes. — In addition to its regular work the department has co-operated with various federal departments in carrying out their work. During the year 398 complaints of alleged non-compliance with the codes were investigated and reported on by the department's inspectors working in co-operation with federal investigators.

Certificate of Handicap. — Under authorization from the Secretary of Labor at Washington the Commissioner of Labor and Industries had sole authority to issue certificates of handicap and special home work certificates under the NRA codes. Pending the appointment of a Commissioner this authority was delegated to the Acting Commissioner. During the year 650 such certificates were issued to persons physically or mentally handicapped or handicapped because of old age; and 44 industrial homework certificates were issued.

Apprentice Training. — The Acting Commissioner served as a member of the State Committee on Apprentice Training, representing the State Department of Labor and Industries.

Recognizing that for the most part apprenticeship has disappeared and the need of some substitute in the way of part-time instruction for young persons, with the active co-operation of local educational authorities, the President on June 27, 1934, issued an Executive Order which provided for the establishment on a nation-wide basis of machinery to formulate and carry on an apprentice training program.

Under authority of the President's Executive Order and standards set up by federal and state apprentice training committees, the issuance of certificates of exemption from certain code provisions was permitted whereby young persons of at least 16 years of age could be employed below the rates set by the codes. These certificates could be issued only after apprentice training contracts had been approved by the state committee. It was fundamentally a program of *learning while earning*.

Rehabilitation Certificates. — To the Acting Commissioner of Labor and Industries was delegated the authority to approve the issuance of certificates under the NRA to handicapped persons who were enabled to return to the ranks of industry through the employees training program of the Rehabilitation Section of the State Department of Education.

EMPLOYMENT SERVICE

The work of this division has been greatly increased and an opportunity for broader service made possible by the opening of five new employment offices in co-operation with the U. S. Employment Service.

At the request of the Mayor of Boston the employment division made surveys of the facilities offered by the Municipal Employment Bureau of the city of Boston and Employment Division of the City's Public Welfare Department. Many of the recommendations made as a result of these surveys were adopted.

NON-PAYMENT OF WAGES

Claims for non-payment of wages numbering 2,871 were received and the amount paid to claimants as the result of action by the department was \$58,366.45 As stated in former reports, these claims are mostly for small amounts due employees who cannot afford to lose their wages or to take civil action to collect the same.

MINIMUM WAGE

With the passage of Chapter 308, Acts of 1934, ended the long fight for a mandatory minimum wage law in Massachusetts. The new act provides for material and substantial changes in the operation of the law, its administration and enforcement. Under its provisions, the responsibility of the Commissioner is increased while the duties of the minimum wage commission are somewhat lessened. The principal features of the new law are outlined in the report of the Division of Minimum Wage, together with recommendations of the department whereby decrees existing previous to the passage of the mandatory law may be brought under its provisions.

OCCUPATIONAL HYGIENE

The new division of Occupational Hygiene is primarily a research bureau. The division was not established until late in September, and the remaining few months of the year have been devoted to securing quarters and office equipment and to the establishment of a laboratory.

APPROPRIATIONS

The total amount of the several appropriations for the use of the department during the year ending November 30, 1934, was \$417,718.86; the expenditures amounted to \$389,756.07, leaving an unexpended balance of \$27,962.79. There has been collected in fees through the Division of Standards and paid to the Treasurer of the Commonwealth the sum of \$111,117.97. Fees for the examination of painters and the registration of riggers to the amount of \$5,443.50 were also collected and paid into the state treasury through the Division of Industrial Safety.

MARY E. MEEHAN,

Acting Commissioner of Labor and Industries.

FINANCIAL STATEMENT FOR 1934

INCOME

Division of Industrial Safety

Fees for registration of painters' rigging	1,124.50
Fees for examination for certification as painters' rigging	4,319.00

Collected in fees and paid into the treasury of the commonwealth \$5,443.50

Division of Standards

Collected in fees and paid into the treasury of the commonwealth	\$70,957.72
Collected in fees and paid into treasuries of the cities, towns and counties of the commonwealth	39,756.00

Penalties for violations of hawkers and pedlars laws 404.25

Total receipts of division of standards \$111,117.97

Total receipts of department of labor and industries \$116,561.47

EXPENDITURES

Account	Appropriations	Expenditures	Unexpended Balance
<i>Administration</i>			
Commissioner, assistant and associate commissioners, personal services	\$18,614.00	\$15,964.64	\$2,649.36
Clerical and other assistance	6,640.00	5,911.98	728.02

Division of Industrial Safety

Inspectional service, personal services and expenses	162,549.46	158,866.36	3,683.10
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Division of Statistics

Statistical service, personal services and expenses	61,420.00	61,025.07	394.93
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Division of Public Employment Offices

Personal services	55,787.00	55,359.19	427.81
Other expenses	12,804.75	12,800.54	4.21

Board of Conciliation and Arbitration

Personal services	14,740.00	8,252.15	6,487.85
Other expenses	3,100.00	2,273.87	826.13

Division of Minimum Wage

Personal services	13,370.00	13,089.80	280.20
Other expenses	3,220.25	1,850.23	1,370.02

Wage boards

Personal services	1,500.00	—	1,500.00
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Division of Standards

Personal services	29,344.00	29,343.30	.70
Other expenses	13,986.26	9,938.94	4,047.32

Division on the Necessaries of Life

Personal services	12,100.00	12,000.00	100.00
Other expenses	2,053.14	1,981.79	71.35

Division of Occupational Hygiene

Personal services	1,690.00	968.66	721.34
Other expenses	4,800.00	129.55	4,670.45

Totals

Public Employment Offices, United States Grant	8417,718.86	\$389,756.07	\$27,962.79
	38,292.57	38,231.10	61.47

GRAND TOTAL

	\$456,011.43	\$427,987.17	\$28,024.26
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Recapitulation

Officials	\$18,614.00	\$15,964.64	\$2,649.36
Personal services and expenses	397,604.86	373,791.43	23,813.43

Wage boards	1,500.00	—	1,500.00
Public Employment Offices, United States Grant	38,292.57	38,231.10	61.47

GRAND TOTAL

	\$456,011.43	\$427,987.17	\$28,024.26
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REPORT OF THE DIVISION OF INDUSTRIAL SAFETY

JOHN P. MEADE, *Director*

INSPECTION OF INDUSTRIAL ESTABLISHMENTS

During the year the inspectors of this division were called upon to give co-operation in their work to the enforcement of the codes of the National Industrial Recovery Act. Massachusetts was one of the few states delegated by the federal authorities to do this. When a violation of the code came to the notice of the inspectors during their investigations in places of employment, this information was immediately forwarded to the State Director, Major John J. McDonough, an inspector of this division who was loaned to the federal authorities to organize this work in Massachusetts. There was a total of 398 complaints of this description and in most of these it was alleged that the code wages were not paid.

The regular and systematic inspection of industrial establishments was continued. Experience has made it clear that efficient enforcement of labor laws rests upon this practice. Through this means the protection to employees provided for by statute is maintained. Suitable lighting is furnished in work places. Compliance is secured with laws and regulations for the safeguarding of dangerous machinery. Sanitary requirements are enforced. These include rules and regulations for suitable toilet and washing facilities, adequate ventilation of industrial establishments, the maintaining of proper temperature in weaving and spinning departments of textile mills, providing pure water for drinking purposes and enforcing the statutes restricting the hours of employment of women and children.

Within the scope of this inspection work, building operations are included and regulations enforced to maintain safe scaffolding and working platforms for employees in the different trades. Requiring compliance with the law in relation to employment in the construction of public works, including provisions for veterans' and citizens' preference, and the eight-hour day, is a prominent factor in this work.

Complaints alleging violations of labor laws are investigated. Causation of injury is studied in accidents and diseases of occupations and means for prevention of similar occurrences required. There will be found elsewhere in this report detailed reference to both of these subjects. Special reports on problems affecting employees in industry are made to the Commissioner for his attention and direction.

SUMMARY OF ACTIVITIES

During the year there was a total of 36,401 inspections and 11,296 re-inspections. The following is a summary of activities:

Inspections

Mercantile	20,137	Road construction	508
Mechanical	7,854		36,401
Manufacturing	2,557		
Building operations	2,225	Re-inspections	11,296
Painting operations	3,120	Total	47,697

Visits

Complaints	3,445	Homework	91
Accidents	1,167		
Occupational diseases	392	Total inspections and visits	52,792

Complaints Received

<i>Women and Minors</i>		<i>Time Notices</i>	
Overtime employment	479	Not posted	27
<i>Minors</i>		Improperly posted	3
Employed under 14 years	19	Time other than stated	12
Employed without certificate	28		
Employed in prohibited trades or on dangerous machinery	10		42
Illegal exhibition of children	9		

Public Works

Overtime employment	4	Toilets, washing facilities	80
Citizens' preference	5	Lockers	0
Veterans' preference	6	Locked doors	5
Laborers' vacations	1	Lighting	6
Prevailing rate of wages	6	Ventilation	46
	22	Medical kits	3
<i>Illegal Advertising</i>	9	Rest rooms	0
<i>Labor, General</i>		Seats for women	8
One day's rest in seven	54	Drinking water	10
Holiday employment	0	Benzol not labeled	1
Fines	8		159
Homework	0	<i>Building operations</i>	224
Unguarded machinery	12	<i>Non-payment of wages</i>	2,871
Failure to post piece rate	6	<i>National Recovery Act</i>	398
	80	Total complaints	4,350

Orders Issued

Labor: Employment of women and minors, 35; posting time notices, 3,606; minors employed in prohibited trades, 20; public exhibition of children, 2; procuring and returning certificates, 2,219; one day's rest in seven, 433. Total, 6,315.

Health: Ventilation, humidity, dust removal, drinking water and core rooms, 556; lighting and injuries to eyes, 434; toilet and washing facilities, 2,699; meal hours, seats for women and lockers, 109; common drinking cups and towels, 153; first-aid room and medical chests, 1,746. Total, 5,697.

Safety: Communication with engine room, 29; safeguarding machinery, 2,490; free egress, 91; unguarded openings, 62; shuttle guards, 4. Total, 2,676.

Miscellaneous: Specifications — textile, 8; licenses for homework, 12; pay weekly, 25; post piece rate, 29; children employed where alcohol is sold, 2; labeling benzol containers, 4. Total, 80.

Building Operations: 285; Painting operations, 1,007.

Public Works: Giving citizens preference, 2; 8-hour day, 5. Total, 7.

Totals: Orders issued, 16,067; orders complied, 16,354, which included 5,061 verbal orders which were complied at the time of issuance. Orders outstanding December 1, 1934, numbered 904.

INDUSTRIAL SAFETY

The department issued 2,490 orders for the safeguarding of machinery. These included power transmission parts and protection at the point of operation; installation of interlocking devices; control of metal grinding machinery; safeguarding of saws, jointers and planers in woodworking establishments; stamping and punch press machinery and shears for cutting steel. General work of this type was stressed in textile mills, foundries, shoe factories, tanneries, and factories making electrical machinery apparatus and supplies, motor vehicles, jewelry and soap. Shielding the eyes of employees and caring for hands and fingers exposed to dangerous mechanism were prominent factors in this activity. While allowance must be made for decreased exposure hours in 1933, comparison made with accidents of this type in 1919 leads to the conclusion that the regular inspection of establishments where machinery is used has resulted in reduction of machinery accidents.

Machinery Accidents by Manner of Occurrence

		1919	1933
Starting, stopping or operating machinery	9,675	2,183	
Adjusting machine, tool or work	1,758	319	
Hit by flying objects	3,285	286	
Cleaning or oiling machines	1,298	257	
Breaking of machine, tool or work	620	178	
Repairing machine	223	65	
All other	1,631	896	
	18,490	4,184	

During 1933, of the machine accidents 2,183 or 52.2% occurred "while starting, stopping or operating machine." There were 2,893 cases that occurred at the "point of operation."

Machine Accidents, by Part of Machine

<i>Part of Machine</i>	<i>Number of Cases</i>	<i>Per Cent of Total</i>
Point of operation	2,893	69.1
Belts	166	4.0
Crank or eccentrics	19	.5
Flywheels	8	.2
Gears	98	2.3
Set screws, keys and bolts	4	.1
Counterweights	3	.1
All other	993	23.7
	4,184	100.0

In 1919, out of a total of 67,240 tabulatable accidents, 1,750 or 2.6% resulted in permanent partial disability. During the year ending June 30, 1933, there were 31,769 tabulatable injuries, of which 602, or 1.9%, were permanent partial disability injuries. These accidents included loss of fingers, hands, thumbs, toes, feet, limbs and loss of sight. The use of hand tools is one of the leading causes and is responsible for more than one half of the eye injuries in the past thirteen years. Flying chips of metal, mineral or wood, splashing liquids including molten metal and acids, and explosions of various types, continue to furnish fruitful sources for eye injuries. Accidents of this type also occur from blows by belts, by emery grinding and polishing processes, from sand blasting and flying objects of all kinds. Other factors in many of these injuries include the neglecting of slight cuts which result in infection, exposure to excessive radiating heat, and eye strain resulting from improper or inadequate lighting. The provisions of law to protect the eyesight of employees occupied prominent place in the work accomplished through inspection of industrial establishments. When the nature of the work or the machinery used suggested danger of injury to the eyes of employees, mechanical devices were required for their protection. Suitable goggles and transparent shields were among the means required for this purpose.

Numerous difficulties intervened to hamper this accident-prevention work. The workmen failed to use protective devices, for they proved to be uncomfortable at times. Dust, steam, or perspiration frequently covers the lenses of the goggles. In emery-wheel grinding, a glass guard securely fastened in a frame and properly attached to the mechanism is the best protection in a case where several men use the wheel. Head shields or helmets were suggested for use in many cases where exposure of the eye to intense heat and light existed. These provisions were met with co-operation in establishments where danger to the eyes prevailed in the course of employment. The industrial bulletin issued by the department and containing suggestions to employers and employees for the prevention of eye accidents was circulated among employees working in trades where eye injuries were numerous. The importance of taking care of the eyes was stressed in this publication. Through this medium attention was directed to the cause of eye injuries, especially to employees working in clerical service and in drafting, sewing, tailoring, dressmaking, woodcarving, typesetting, spinning and other general textile work, and in shoe and leather making, tool and cutlery working and metal grinding and polishing. Comparative tables of such injuries which resulted in loss of wage-earning capacity taken from Table XIV, Department of Industrial Accidents, follows:

Specific Injuries

		<i>1919</i>	
		<i>Number of Cases</i>	<i>Per Cent of Total</i>
One finger or thumb lost at or above first joint	.	1,109	73.1
Two fingers on one hand	.	171	11.2
One eye	.	115	7.6
One hand	.	60	3.9

Specific Injuries—Continued

	1919	Per Cent of Total
	Number of Cases	
One toe	25	1.6
One foot	15	1.0
Two toes	12	.8
Both feet	2	.1
One hand and one finger	2	.1
One hand and one foot	1	.1
Both eyes	1	.1
One finger on one hand, and one on the other	1	.1
One finger on one hand, and two on the other	1	.1
Two arms and two legs	1	.1
One hand and one toe	1	.1
	1,517	100.0

Specific Injuries

	1933	Per Cent of Total
	Number of Cases	
One or more fingers, 1 phalange	336	62.6
One eye	45	8.4
Two or more fingers, 2 or more phalanges	41	7.6
Right or major index finger, 2 or more phalanges	26	4.8
Right or major thumb, 1 phalange	18	3.3
Right or major index finger, at second joint and one or more fingers	14	2.6
One toe	13	2.4
Right or major hand or arm	10	1.9
Left or minor hand or arm	10	1.9
Right or major thumb, 2 or more phalanges	6	1.1
One foot or leg	5	.9
Right or major thumb at second joint and 1 or more fingers	4	.7
Right or major thumb at first joint and 1 or more fingers	3	.6
Two or more toes	3	.6
Right or major thumb and index finger, 2 or more phalanges	1	.2
Two or more fingers or thumbs on both hands	1	.2
One foot or leg and 2 or more toes	1	.2
Totals	537	100.0

Free Egress from Factory Buildings

Because doors were locked, bolted or otherwise fastened in violation of the law, it was necessary to issue 91 orders. In some of these establishments inflammable compounds or explosives were used and processes carried on that might obstruct or render dangerous the egress of operatives in case of fire. Barrels, boxes, refuse cans and containers were found stored temporarily in front of the exits and were removed immediately upon order of the inspector. Careful inspection was given to places where processes of industry in which gasoline, benzine, ether, naphtha, turpentine and benzol were used, including establishments engaged in the business of dry cleansing, engraving, rubber compounding and commercial photography. Closed containers and substitution of less inflammable and non-explosive compounds were urged in some instances as precaution against explosion and fire in factory buildings.

Special Work in Hazardous Plants

During the year a system of inspecting certain hazardous industrial plants every three months was established and a list of nearly two hundred such places were selected for this purpose. These included concerns engaged in the manufacture of porcelain, enamel products, storage batteries, fireworks, powder companies, granite cutting, rubber companies, foundries, smelting works, rayon, paper, brake-lining manufacturing, stone crushing, wood heel making, rubber cement, paints,

celluloid products, drop forging, concerns making and using benzol and manufacturing chemicals. The purpose is to extend this increased inspection coverage to plants where the need for it is apparent. This plan encourages the assurance that when exhaust equipments become defective or worn out, the danger may be discovered earlier than otherwise would take place. This is also true of many other occupational processes in which new employment procedures arise. There is filed with the department a record of each inspection, showing condition of plant including its record of accident, the safety program which is followed, if any, the accidents in the plant since the last inspection, and a statement indicating in general the attitude of the concern with respect to its compliance with the law. Frequent check-up of this kind is an excellent means of maintaining interest in accident prevention. It resulted in the issuance of 102 orders by the department in this special group and the record shows prompt compliance with the requirements.

Building Operations

During the year, 1,238 orders were complied with for safeguarding employment on building. These included requirements for the installation of safety devices in connection with the use of electricity of dangerous voltages, protection to employees working below stagings or around floor openings, regulations to control smoke and fumes where artificial light was used, and the piping of salamanders in order to provide exhaust removal to the outer air. Examination of stagings used in the painting of buildings was prominent in this work. Safety provisions, requiring that every swing stage be tied or otherwise secured to prevent swaying, that ladders used as stage beds and ladder-type platform stages shall be of approved design and entirely free from defects affecting their strength, providing on every swing stage one or more guard rails securely attached to the stage at each fall and extending the entire length of the outer edge of the stage, trestle ladders of approved design and conforming in all respects to the rules and regulations, were given attention. The work of building inspectors during the past year was concentrated largely upon the repairs and alterations to existing structures.

The building trades industry contributed 2,490 cases or 7.8% of all industrial accidents for the year ending June 30, 1933. Fifteen of these cases were fatal, or 9.3% of all fatal cases. There were 37 permanent partial disability injuries or 6.1% of all cases of this type. There were two cases of total disability, or 25% of all such cases.

Accidents in the Building Trades

During the year there were 156 accidents investigated in the building trades. Thirty of these were fatal.

Classified by Employment

Painting	.	.	.	.	.	.	.	.	.	.	.	.	49
Road building	.	.	.	.	.	.	.	.	.	.	.	.	37
Alterations and repairs	.	.	.	.	.	.	.	.	.	.	.	.	27
Building construction	.	.	.	.	.	.	.	.	.	.	.	.	18
Bridge building	.	.	.	.	.	.	.	.	.	.	.	.	10
Roofing	.	.	.	.	.	.	.	.	.	.	.	.	10
Building wrecking	.	.	.	.	.	.	.	.	.	.	.	.	5
Total	.	.	.	.	.	.	.	.	.	.	.	.	156

Classified by Nature of Injury

Fractures	.	.	.	60
Bruises and contusions	.	.	.	25
Brakes	.	.	.	17
Lacerations	.	.	.	16
Internal injuries	.	.	.	16
Amputations	.	.	.	9
Smothered to death	.	.	.	4
Sprains and strains	.	.	.	3
Burns and scalds	.	.	.	2
Crushed to death	.	.	.	2
Concussion	.	.	.	1
Electrocution	.	.	.	1
Total	.	.	.	156

Classified by Causation of Injury

Collapse of staging	.	.	.	40
Loss of balance	.	.	.	36
Struck by falling objects	.	.	.	18
Trench cave-in	.	.	.	17
Rope broke	.	.	.	8
Ladder broke	.	.	.	7
Slipping of ladder	.	.	.	5
Falls through openings	.	.	.	5
Faulty scaffolds	.	.	.	3
Contact with live wires	.	.	.	2
Broken gutters	.	.	.	1
All other	.	.	.	14
Total	.	.	.	156

Prevention of Work Injuries

There were 829 accidents investigated by this department during the year ending November 30, 1934. Accidents were investigated in 673 industrial establishments, and 156 in the building trades. Those occurring in industrial establishments included 650 adults and 23 minors under eighteen years of age. One hundred and nine of the total number were fatal; 79 of these were in industrial establishments and 30 in the building trades. The regularly inspected plant is rarely a place where frequent accidents occur. Uniform supervision of dangerous trades is essential in this work. Safeguarding exposure to occupational danger and instructing the employee to exercise care in the performance of his regular duties accomplishes a great deal in preventing work injuries. Unguarded machinery is discovered and statutory requirements to protect the employee from contact with danger points in the operating mechanism are enforced. These include regulations providing that permanent passageways and gangways shall be of even surfaces, kept clear and free from projecting nails, tools and obstructions; maintaining stair treads in good repair and equipped with handrails of metal or wood, free from splinters or other hazards; and requiring means to prevent slipping on floors in plants where woodworking machines are used, such as rubber mats or nonslip composition flooring. Faulty conditions in the plant caused by the work processes are often found to be the cause of painful injury and prolonged incapacity. Attention is directed to these dangers and orders issued by the department for their correction.

General Accidents

There were 615 general accidents investigated during the year by the inspectors of the department — 553 men and 62 women. Of the total number, 78 were fatal. Following is a table of the industrial accidents that were investigated during the year ending November 30, 1934. This table does not include eye accidents or accidents that occurred in the building trades. See other tables for summaries of these accidents.

Industrial Accidents Investigated during the Year Ending November 30, 1934, by Industry, Age and Sex

Industry	Total No.	Total		14-17		18-20		21-30		31-40		41-50		51-60		61- 71		Fatal M F
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Textiles	126	108	18	1	4	10	1	18	6	26	3	27	4	16	—	10	—	13 —
Paper and paper products	47	44	3	—	1	6	1	14	—	4	—	9	1	7	—	4	—	7 —
Furniture and wood products	44	44	—	1	—	4	—	8	—	16	—	5	—	6	—	4	—	2 —
Metal goods	42	37	5	—	—	2	1	9	2	12	1	7	1	5	—	2	—	3 —
Food products	38	34	4	2	1	4	2	10	1	3	—	8	—	5	—	2	—	2 —
Foundry and machine shop products	35	33	2	—	—	—	—	11	1	6	—	7	—	8	1	1	1	4 —
Shoes and shoe findings	32	24	8	—	—	3	3	7	2	4	2	5	—	4	—	1	—	2 —
Electrical	31	27	4	—	1	—	1	11	1	7	1	9	—	—	—	—	—	7 —
Leather and leather products	29	27	2	—	—	—	1	3	—	7	1	9	—	6	—	2	—	4 —
Printing and publishing	18	18	—	—	—	3	—	10	—	1	—	3	—	—	—	1	—	1 —
Mercantile	17	14	3	6	1	—	1	2	—	1	—	4	—	1	1	—	—	4 1
Keys and hardware	13	12	1	—	—	1	1	3	—	4	—	1	—	2	—	1	—	1 —
Optical goods	12	10	2	—	—	2	2	3	—	2	—	1	—	—	—	2	—	2 —
Rubber and rubber products	12	9	3	—	2	1	—	3	1	1	—	3	—	1	—	—	—	1 —
Fuel	10	10	—	—	—	1	—	2	—	4	—	1	—	2	—	—	—	2 —
Jewelry and clocks	9	8	1	—	—	1	—	1	—	1	—	3	—	2	—	—	—	—
Chemicals	9	7	2	1	—	1	1	3	—	—	1	1	—	1	—	—	—	1 —
Garages and oil stations	8	8	—	—	—	—	—	3	—	4	—	1	—	—	—	—	—	1 —
Window cleaning	8	8	—	—	—	—	—	3	—	—	—	2	—	3	—	—	—	5 —
Toys and games	7	7	—	—	—	—	—	4	—	2	—	1	—	—	—	—	—	—
Real estate	6	6	—	—	—	—	—	—	—	—	—	2	—	2	—	2	—	3 —
Awnings and sails	5	5	—	—	—	1	—	4	—	—	—	—	—	—	—	—	—	1 —
Boat building	5	5	—	—	—	—	—	—	1	—	1	—	2	—	1	—	1	—
Granite and stone	5	5	—	—	—	—	—	1	—	1	—	1	—	1	—	1	—	3 —
Ice manufacturing	5	5	—	—	—	1	—	2	—	2	—	—	—	—	—	—	—	1 —
Laundries	5	4	1	—	—	—	—	1	1	2	—	1	—	—	—	—	—	1 —
Transportation	5	5	—	—	—	—	—	—	—	—	—	2	—	3	—	—	—	3 —
Paint manufacturing	4	4	—	—	—	—	—	3	—	—	—	—	—	1	—	—	—	—
Distilleries	3	2	1	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—
Car builders	3	3	—	—	—	—	—	—	—	1	—	2	—	—	—	—	—	—
Miscellaneous	22	20	2	1	—	2	1	3	1	4	—	7	—	3	—	—	—	2 —
Totals	615	553	62	12	10	43	16	144	17	118	9	123	6	81	2	34	2	77 1

Classified by type of injury, they are as follows:

Type of Injury	Total	Non-Fatal	Fatal
Amputations	227	225	2
Abrasions, bruises and contusions	136	129	7
Fractures and breaks	79	75	4
Cuts, punctures and lacerations	55	54	1
Burns and scalds	46	37	9
Fatal falls	18	—	18
Electrocution and electric shock	15	2	13
Sprains and strains	13	7	6
Crushed to death	9	—	9
Infected lacerations	6	1	5
Concussions	5	4	1
Internal injuries	5	3	2
Drowned in oil	1	—	1
Total	615	537	78

Employees sustaining these injuries worked at the following occupations:

Textile Mills: Speeder tenders, card tenders, spinners, dyers, weavers, pickers and winding machine operators.

Paper Mills: Calender operators, millwrights, diemakers, beater men and helpers on machines.

Furniture Factories: Power saw operators, millmen, moulder operators and cabinet makers.

Metal Trades: Press operators, machinists, drill operators, rollers and wire drawers.

Food Manufacturing: Packers, meat slicers, bakers, machine feeders and wrappers.

Foundries: Moulder, machinists, iron workers, press hands and welders.

Electrical Manufacturing: Punch press operators, testers, linemen and electricians.

Tanneries: Seasoners, glaziers, cellar hands, embossers, and beam house workers.

Shoe Manufacturing: Heel trimmers, press operators, leather cutters, dinker operators.

Miscellaneous: Press operators, printers, mechanics, woodworkers, buffers, laborers, window washers, machinists and bottlers.

Contact with machinery caused 440 of the 615 accidents investigated. In plants where accidents occurred, 485 had machines that were safeguarded; 346 of these establishments maintained first-aid rooms, and in addition, 174 of this group had nurses or other attendants in charge and 21 had a full-time nurse and doctor in the first-aid room, while 137 had a nurse with a doctor on call. Medical kits were maintained in 185 other establishments.

Eye Injuries

There were 58 eye injuries investigated by this department during the year. One of these proved fatal. Fifty-four of these accidents occurred to men, and four to women. They are as follows:

<i>Classified by Industry</i>		<i>Classified by Nature of Injury</i>		
Textile manufacturing	11	Irritations	17	
Automobile mfg. and service	5	Foreign bodies	16	
Metal trades	5	Burns	5	
Shoes and shoe findings	5	Loss of eye	4	
Machinery	4	Cataract	2	
Electrical	3	Cuts, punctures and lacera-		
Hardware	3	tions	12	
Motorcycles and bicycles	2	Bruise	1	
Optical goods	2	Septicemia	1	
Pyroxolin	2			
Roofing	2			
Shoe lasts	2			
Woodenware	2			
Miscellaneous	10			
Total	58	Total	58	

These eye injuries were caused by chips from grinding wheels, fumes and scatterings of acids. Typical illustrations are:

In spinning rayon a weak solution of sulphuric acid got into the eyes irritating them;

An operator on white shoes used a powder for cleaning purposes and sustained an injury when quantities of it entered the eye;

Struck by a chip while operating a buffering machine;

Injured in the eye by a needle breaking and flying from the machine;

An emery wheel in grinding steel caused a sliver to fly and hit the workman in the eye;

While pouring melted iron into a mould some of it splashed into the eye;

these are common types of such injuries. In the one fatal case a drop of ammonia falling into the eye of a workman caused blood poisoning resulting in his death.

Non-Machinery Accidents

Falls of persons and stepping on or striking against objects caused more accidents during the year than contact with machinery parts. The handling of objects and tools caused more industrial injuries than either falls or machinery accidents. These facts are well known to the inspectors who continually advise against conditions responsible for the origin of such accidents. Only through concerted effort of employees and management under intelligent direction will non-machinery accidents be reduced. Recommendations by inspectors in this connection include instructions for the careful handling and storing of raw material and preventing the overcrowding of employees in work places. The number of tabulatable injuries arising from non-machinery accidents and the extent of the disability which they caused appears from the following table:

*Total Tabulatable Injuries, by Cause of Injury and Extent of Disability**

Cause of Injury	Totals	Deaths	Permanent Total Disabilities	Permanent Partial Disabilities	Temporary Total Disabilities
Handling of objects	9,484	15	1	85	9,383
Falls of persons	5,870	21	4	27	5,818
Machinery	4,184	10	—	365	3,809
Hand tools	2,476	3	1	41	2,431
Vehicles	2,453	49	—	19	2,385
Stepping on or striking against objects	2,261	4	—	3	2,254
Miscellaneous causes	1,537	13	1	15	1,508
Falling objects not being handled by employee	1,339	6	1	15	1,317
Explosions, electricity, etc.	1,284	24	—	11	1,249
Occupational diseases	698	16	—	21	661
Animals	183	1	—	—	182
Totals	31,769	162	8	602	30,997

*Taken from Table X of the Annual Report of the Department of Industrial Accidents for the year ending June 30, 1933.

First-Aid Treatment

There were 1,746 orders issued by the department requiring compliance with the first-aid provisions of the statutes and the department's rules and regulations. Failure to furnish basins, hot water, suitable chairs, blankets, and the replenishing of medical chests, were responsible for the issuance of the orders. Persons other than a qualified nurse, employed in giving first-aid treatment, were required to furnish certification from a doctor that they were competent to do the work. Injuries resulting from infection continued to be a frequent cause for incapacity and partial disability. A comparison of statistics of infections shows that there were 1,119 cases less than in 1932. One out of every ten tabulatable injuries resulted in infections. The following tables show the infection, nature of injury and extent of disability, and indicate the experience with such injuries by the Department of Industrial Accidents.

Infection, by Nature of Injury and Extent of Disability, 1933

Nature of Injury	Totals	Deaths	Permanent Partial Disabilities	Temporary Total Disabilities
Cuts, punctures, lacerations	2,013	6	1	2,006
Abrasions, bruises, contusions	432	3	—	429
All other	420	1	2	417
Burns and scalds	80	—	—	80
Amputations, loss of use	31	—	31	—
Fractures	6	2	—	4
Sprains and strains	3	—	1	2
Totals	2,985	12	35	2,938

In 1933, the most recent period available for dependable statistics in this connection, it is indicated that 9.4 per cent of the total tabulatable injuries were infection cases.

Injuries to Employed Children

During the year ending June 30, 1933, eight children, all boys, under fourteen years of age were injured in their employment in street trades or other occupations permitted under the statutes. The total number of injuries to children between fourteen and eighteen years of age reported to the Department of Industrial Accidents was 600, or 2.0 per cent of all tabulatable injuries. Classified by age and sex they are as follows:

Age	Number	Boys	Girls
14	15	15	—
15	64	51	13
16	181	137	44
17	340	244	96
	600	447	153

Permanent partial disability injuries received in this group classified by age and sex are as follows:

Age	Number	Boys	Girls
14	—	—	—
15	1	1	—
16	1	1	—
17	4	3	1
	6	5	1

Practically all the serious industrial accidents sustained by children were investigated. These included all fatal and permanently disabling injuries to children aged fourteen to eighteen as reported to the Department of Industrial Accidents for the year ending June 30, 1933. The certificating requirements of the children were checked up and found to be in general compliance with the law.

Fatal Injuries to Minors Under Eighteen

There were two fatal accidents to minors. A fifteen-year-old boy was employed as a caddy at a golf club. He developed a blister on each great toe which became inflamed. Incision and drainage was performed while he remained at the camp. A local doctor was called and his temperature was found to be 102°. Hot soaks were prescribed and continued for two days. A moderate amount of pus was liberated from an infection of left toe. He had several convulsions and lived three days after being admitted to the hospital. Compensation was paid by insurer to his father.

Another boy sixteen years old was employed running an elevator in the warehouse of a wholesale market. He was caught between the elevator and third floor and dragged up one flight. His spine and lower back were injured and he died two days later. In this case a lump sum settlement agreed to by his mother and the insurer was approved, indicating that the question as to whether the injury arose out of and in the course of his employment was in doubt.

*Permanent Partial Disability Injuries to Children Under Eighteen
for Year Ending June 30, 1933*

During the year ending June 30, 1933, six children under eighteen years of age received permanent partial disability injuries. Of this number five were boys and there was one girl.

One of the boys fifteen years old was employed pulling and hanging up skins to dry in a tannery. Having no work to do at the time, he and other boys were told to go home but they started fooling around the factory. They jumped on the elevator and before this boy could get his hand off the bar the elevator started, jamming his hand, and it was necessary to amputate the left forefinger at the first joint.

A sixteen-year-old boy employed in operating a toe stapling machine in a shoe factory had a staple completely imbedded in the index finger of his right hand. An operation was performed to remove the staple and he suffered the loss of the use of his finger.

All others in this group were seventeen years old. An errand boy and helper, in a factory where oil-burning systems are manufactured, attempted to raise the elevator door which stuck on account of the damp weather. The forefinger of his right hand was caught and amputated at the first joint.

An apprentice employed by an airplane sales and service company was planing a board and his left index finger slipped off onto the cutter taking it off at the distal joint.

An operator on a hand-feed punch press in a canning factory had his hand caught in the mechanism of the chute of the feeding device, cutting the tip of the forefinger and amputating the third finger of right hand at the first joint.

The only girl in this group was employed as a helper on a sanding machine in a rubber plant. Both hands were caught in the machine. The third and fourth fingers of the left hand and the second, third and fourth fingers of the right hand were lacerated. Loss of use of the left ring finger took place.

One of these accidents occurred in each of the following industries: oil burner manufacturing; airplane sales service; metal trades; rubber; tannery, and shoe manufacturing.

RECORDS OF WORK PLACES

As a basis for the founding of this necessary information, the division established a system of history cards early in the year, to record the standing of each concern and its interest in the enforcement of law and the reduction of industrial injury. It was found essential to the progress of this work that such knowledge should be available to the inspection staff of the division for its prompt and immediate use. The cards prepared for this purpose cover a five-year period and are designed to give at a glance a true picture of each industrial establishment and its attitude on these questions. To accomplish this end and to furnish a ready source of information on these subjects the cards are grouped into three classes and have distinct colors to show the different types of manufacturing, mechanical and mercantile establishments, and workshops. These are filed by districts and the arrangement shows the type of work done in the territory. They measure 8" x 5" and contain the following information: the firm name, address, the nature of business, the name of inspector, reason and date of visit, investigation of industrial injury, orders issued, violations found, and record of when and where the offence occurred and the penalty for the violation. On the back of the card is shown the date of the inspection and the number of employees including males and females between 14 and 16 years of age, boys 16 to 18 years of age, males and females between 16 and 21 years of age, adults, and employees in office. This system has shown excellent results in the matter of recording complaints and orders issued, and has proven itself of value in the inspection work. At the end of the five-year period which the cards cover it is believed the department will have a condensed history of each firm and a classified rating in the matter of its co-operation with the statutory requirements. Through these cards more complete information from the inspectors' reports and matters of correspondence between the firm and the department in this period is made immediately available.

LABOR LAWS — WOMEN AND CHILDREN

In 30,548 manufacturing, mechanical, mercantile and other establishments, inspections were made. These included manicuring and hairdressing establishments, motion picture theatres, express and transportation companies, telegraph offices and telephone exchanges. Instructions were given to responsible persons in each place visited regarding the posting and proper making out of time notices for women. In districts where manufacturing concerns employed persons in shifts during the peak season, night inspection was the rule. The employees working in each tour of duty were interviewed and their hours of employment verified through examination of the lists on file. Much time was given to this type of work in hotels, restaurants, lunchrooms and establishments where alcoholic beverages as defined in section 1 of chapter 138 were manufactured, packed, wrapped or bottled. This work resulted in compliance with 5,990 orders issued by the department. Night employment of girls under twenty-one years of age in roadside stands was given careful supervision. Co-operation on the part of the general public in the enforcement of laws restricting the hours of labor for women and minors is shown in the 391 complaints coming to the department from this source. In 96 cases violation of law was found. In some of these court action was taken against the employer. In others, prompt compliance with the law upon the issuance of orders by the department was obtained. Employment at time other than stated on the printed notice appeared to be a most common form of violation. Many of these cases happened when men and women were employed together and payment for work was on a piece basis. Piece workers are often irregular as to their time of coming to work and leaving work. Inspectors made frequent visits to such plants and checked up the employment of women with special reference to observance of the working hours as posted.

The employment of children in factories, workshops, manufacturing, mechanical and other industrial establishments was regularly supervised. Careful examination was made of certificates on file, and work done by the child was investigated to determine if the provisions of the law were complied with. In many cases where children were found working in proximity to dangerous machinery, it was made plain to the employer that this was forbidden by statute. Co-operation in this matter was readily given by the well-established concerns of Massachusetts. In establishments where children were given casual employment, such as chain stores, private bowling alleys, theatres, roadside stands, dance halls and similar places, regular supervision was maintained. This work occupied a prominent place in the inspections made at beach resorts and amusement parks in the summertime. Under these circumstances children were occasionally found employed during prohibited hours in small stores or on motor trucks. The part-time employment of children in many of these places required inspections in the early evening hours. Much of this work was done on Saturday evenings and nights before holidays. It included checking up the appearance of children in theatrical and dancing exhibitions and covering child vocalists and performers on musical instruments. Special attention was given to many of the chain stores where the cash-and-carry system had caused some illegal employment of small boys in delivering goods purchased in these places. Young boys were found carrying heavy bundles and packages up three flights of stairs. In this work the police departments have co-operated with the division. The employment of children by milk-wagon drivers in the early morning was investigated by the inspectors who worked in groups covering the urban districts of the state. Much was accomplished in preventing this harmful type of child labor. Co-operation was received from superintendents of schools and attendance officers and directors of continuation schools in conveying to this division information regarding such violations of child labor laws. The number of orders relative to procuring and returning certificates for minors under twenty-one years of age issued during the year was 2,219.

SUSPENDING THE SIX o'CLOCK LAW IN THE TEXTILE AND LEATHER TRADES

The enactment of the National Industrial Recovery Act with its authority to delegate power to groups of employers and employees in certain industries to limit and regulate the hours of employment led to a movement in the legislature of 1933 to modify the labor laws of Massachusetts to such requirements as would appear necessary in the various codes of fair competition. A bill was introduced

in the legislature to suspend the provisions of section 59, chapter 149 of the General Laws which prohibited the employment of women in the manufacture of textile goods after six o'clock in the evening and it became law. The Commissioner of the Department of Labor and Industries, according to its provisions, was given power to make restrictions on the employment of women in night work in conformity with Article 20 of Part the First of the Constitution of the Commonwealth. This mandate of the legislature was complied with by the Commissioner in drafting rules and regulations for the textile industry. In the leather industry there was no demand or necessity for making rules and regulations and there was no employment of women in these places after six o'clock in the evening. Conferences were held with the parties at interest including textile manufacturers and their employees, labor officials and those representing textile employers' organizations, and in the following branches of the textile industry rules and regulations were made by the Commissioner:

1. Cotton Textile, July 22, 1933.
2. Silk and Rayon, July 27, 1933.
3. Wool Textile, August 2, 1933.
4. Hosiery and Knitwear, August 16, 1933.
5. Rug and Carpet Manufacturing, December 5, 1933.
6. Thread, January 31, 1934.

The cotton textile code permitted a maximum of eighty hours weekly divided into shifts of forty hours each. In operating shifts in which women were employed after 6 p.m. the management was required to employ a minimum number of women consistent with the efficient operation of the plant and were expected to favor the employment of women instead of men on any shift terminating before 6 p.m., and the employment of men on any shift extending after 6 p.m. In weaving departments, the employment of men rather than women on any shift extending later than 6 p.m. was specifically urged. The maximum number of women employed on a shift after 6 p.m. should not exceed 45% of the total employees in the cotton textile, and silk and rayon plants; while a ratio of 35% was fixed in the wool textile, and rug and carpet manufacturing; with other arrangements in the hosiery and knitwear, and thread industries.

In checking up the compliance with these provisions during the peak seasons in the trade, the inspection staff visited establishments in the evening noting the number of women employed as against the number of men, and giving special attention to the provisions for the lunch period of forty-five minutes as required by statute. The general experience in this activity was the compliance with the rules and regulations and a clear purpose of co-operation on a sound basis.

On the first inspection it was found that in 363 establishments, 99 of these employed no women on the night shift. In 143, night shifts were not operated. In the remainder, or 121, there were 5,534 women employed on the night shift and 23,015 men. The regulations called upon concerns to refrain from employing women after six o'clock if it was possible for them to do so and the response indicated the willingness to follow the rules in this connection.

The following table gives in detail the number of mills visited on the first inspection and the total number of persons employed on the day and night shifts.

Night Employment Authorized by Chapter 347 of the Acts of 1933

Industry	Mills Visited	No Night Shift	NIGHT SHIFT EMPLOYING			NIGHT SHIFT EMPLOYEES			DAY SHIFT EMPLOYEES		
			Men and Women	Men Only	Women Only	Men	Women	Total	Men	Women	Total
Wool textile .	123	37	39	46	1	8,958	1,428	10,386	19,149	14,652	33,801
Cotton textile .	114	38	51	25	0	11,877	3,516	15,393	19,941	20,333	40,274
Hosiery and knit underwear .	65	44	8	13	0	366	274	640	1,873	3,921	5,794
Silk and rayon .	33	5	17	11	0	1,362	266	1,628	1,888	2,927	4,815
Carpet and rug .	14	9	1	4	0	190	5	195	1,367	610	1,977
Thread . .	14	10	4	0	0	262	45	307	1,997	2,322	4,319
	363	143	120	99	1	23,015	5,534	28,549	46,215	44,765	90,980

Subsequent reinspections revealed that co-operation was given the department in working out the mandate of the legislature.

HOMEWORK

There were 181 licenses granted during the year to make, alter, repair or finish wearing apparel in a room, apartment or dwelling house. Nearly all of these were issued before the provisions of the National Industrial Recovery Act relating to the prohibition of homework became operative. These were principally concerned with work done on neckwear and knitted outerwear goods.

In homework on articles other than wearing apparel, particularly in the making of paper novelties, tags and labels, and where the codes permitted this type of employment to be carried on, the names and addresses of the workers so hired, employed or contracted with, and all of the women and minors dwelling in the room or apartment, as well as in the case of girls under twenty-one and boys under eighteen — their ages, were made known to the department.

INDUSTRIAL HEALTH

The inspection of industrial establishments included attention to conditions dangerous to health. The use of industrial poisons or the generation of irritant dusts or harmful fumes in industrial processes was given regular supervision. Where such work dangers prevailed the co-operation of the management was secured to safeguard against unwholesome conditions. Indicating the progress made during the year, there was general compliance with orders after investigation of plant methods and provisions for sanitation. There were 6,130 orders issued by the department for this purpose. A total of 2,782 of these resulted in compliance with the regulations requiring suitable toilet and washing facilities. They were concerned with the problem of sinks and other appliances based upon the maximum number of persons entitled to use the same at any one time, and requiring adequate lighting facilities and keeping floors around sinks cleaned. Providing employees with clean running hot and cold water was also included. Sanitary inspections were made in certain trades during the period of the year when general ventilation is impaired by reason of closed windows and doors. Conditions found by the inspector in the plants visited and promptly corrected by the employer were these: Entrance to water-closet compartment opening directly into the room, hall or passageways used in the buildings where both sexes were employed are not provided with a screen; ventilation directly to the outside air by window, skylight or other suitable opening was provided; adequate lighting in toilet room and compartments were furnished; enclosing walls substantially constructed so as to assure privacy; compartments for women inside of toilet room were provided with suitable doors or furnished with suitable fasteners.

Industrial poisons were found used in 4,131 places of employment inspected during the year. These were handled by employees in the course of their work. Plants reported in this connection included shoe manufacturing establishments, the making of rubberized fabrics, wood heels, textile fabrics, storage batteries, metal plating, leather finishing and the manufacture of rubber, brake linings, watches and jewelry, refrigerators, paints, automobile body manufacturing, and establishments engaged in the making of other products. In this group of manufacturing concerns certain processes required the use of acetone, cyanide of potassium, aniline, lead oxide, benzine, chromic acid, mercury, sulphuric acid, oil and other toxic substances. Mechanical devices were required at the point of origin in the generation of dust, fumes and gases to prevent inhalation of impurities by employees. The use of suitable containers, providing respirators, masks, rubber gloves and suitable goggles were required in some of these cases to safeguard against the dangers to health. Close supervision was given by the inspectors to the manufacture of storage batteries and operations in foundries where dust arising from the use of silica sand was a factor. The use of respirators by workmen exposed to this hazard was stressed and the importance of constantly wearing them urged upon the employees.

VENTILATION

Efficient ventilation of foundries and workshops was required by the department in 556 orders issued in this connection. Satisfactory co-operation was received in these and compliance with the requirements promptly given. Local exhaust equipment to control exposure at the point of origin was included in most of these cases. Duct openings and shape of hoods was supervised closely and tests made of

the ventilating system to determine its efficiency. Some of these were found operating without proper hoods to adequately control the enclosure at the seat of dust origin and particles escaped into the workroom. Heated fumes were carried into the atmosphere in the air currents in the workshop because the opening of the hood was too large to provide for their withdrawal through the duct. Hoods used for the collecting of the dust were found in some cases too small for efficient protection to employees. Duct openings were found to be inadequate and easily blocked up with refuse material. Hoods were frequently detached from the ducts and in some cases they were broken and failed to function properly. The adjusting of these conditions with the requirements of the law was an important factor of the inspection work during the year. It represents the work done to maintain efficient localized exhaust ventilation as the means of preventing the inhalation of impurities harmful to health. Plants inspected in this connection included shoe factories, foundries, metal plating concerns, wood working establishments and firms engaged in the manufacture of rubber products and the making of asbestos fabrics. Mechanical means used for the removal of dust were examined in the course of inspection in places operating emery, grinding, polishing and buffing wheels. Foundry operations in which smoke, gases, or dusts figured prominently were included.

PURE DRINKING WATER

To provide fresh and pure drinking water for employees during the work hours, 64 orders were issued by the department and these were complied with. It was necessary during the year to request the department of public health to make analysis of water supplies used in connection with some manufacturing establishments. For illustration, in a large shoe manufacturing establishment it was found that the public water supply was connected with the plant for fire protection only and the water used for drinking purposes derived from a dug well located in an open field about 700' away from the plant. The well was not adequately protected from the entrance of surface drainage and foreign matter from a dump located within a short distance. Analysis of this water by the chief engineer of the Department of Public Health showed that at the time of the examination the water was polluted and unsafe to drink. The local board of health was duly notified and changes made in the supply that were essential to protecting the health of the employees. Industrial plants included in this activity were shoe factories, woolen and cotton mills, paper mills, bleachery and dye works, leather finishing companies and tanneries. Nearly all of the orders issued requiring pure drinking water concerned small workshops and were promptly complied with.

LOCKERS FOR EMPLOYEES

In manufacturing and mercantile establishments, including hotels where the nature of the work made it necessary to make a substantially complete change of clothing, there were 22 orders complied with requiring the installation of separate lockers, closets or other receptacles for this purpose, each with a lock and key. In some cases the existing installation was found to be inadequate for the number of workmen employed and additional receptacles were quickly furnished. These conditions prevailed chiefly in tanneries, foundries, and hotels.

SUNDAY WORK AND ONE DAY'S REST IN SEVEN

During the year, 446 orders were issued which resulted in compliance with the statutes regulating Sunday work and providing for one day's rest in seven. The most of these were concerned with the section of the law requiring the posting of schedules containing a list of names for those required or allowed to work on Sunday and designating the day of rest for each. They also included the keeping of time books showing the names and addresses of employees and the hours worked by them on each day. Co-operation was received from police officials in furnishing information to the department when permits to do Sunday work were granted.

LIGHTING

Requiring compliance with the provisions of the lighting code, 434 orders were issued and these were complied with. Protecting employees from glare, and providing better distribution of light and proper shading of lamps, increasing the in-

tensity of illumination at the work place, together with adequate lighting at the entrance and exit were involved in these. In many cases the accumulation of dust and dirt on the lamps impaired the efficiency of the lighting system and regular cleaning of the equipment was urged upon the management. Changing the locality of the lighting source was necessary in many cases where polished surfaces caused eye fatigue and interference with vision. To establish adequate light in the work-room advice was given with regard to the height and location of lamps and use of shades for reflectors. Lighting facilities in basements of mercantile establishments used largely for storage purposes were closely followed.

PROVIDING SEATS FOR WOMEN AND CHILDREN

In the enforcement of these requirements it was necessary to issue 58 orders during the year to manufacturing, mechanical or mercantile establishments requiring that women and children be furnished with seats as provided by statute. Most of these were directed to department stores in which the working force was increased to meet the demands of the holiday trade or to handle the extra business caused by special sales. There was prompt adjustment in providing these seats upon notice being received from the department, and good co-operation was received from these places of employment. It was necessary to confer occasionally with the management when difficulties were experienced in the enforcement of this law. These occurred when employers contended the work could not be done properly while the operator was sitting. These objections were removed and suitable seats provided when requirements of the statute made it necessary. In some plants where work was done exclusively in a sitting position, attention was given to the type of seating facilities provided. Some of these were discovered to be unsuitable and others did not provide for good posture. Better equipment was secured when the department required improved accommodations.

OCCUPATIONAL DISEASES

There were 265 cases of industrial diseases investigated during the year ending November 30, 1934, by the inspection force of this department. These included 231 men and 34 women, 26 of which cases were fatal. In each instance the workplace was investigated and when necessary, suggestions were made and orders issued to prevent recurrence. Co-operation was generally received. These cases are classified as follows:

*Cases of Industrial Illness Investigated During the Year Ending November 30, 1934,
by Disease, Age, and Sex*

Illness	Total		16-17		18-20		21-30		31-40		41-50		51-60		61-		Total		Fatal	
	Cases	M. F.																		
Dermatitis	182	2	1	9	4	55	11	40	10	27	5	12	-	5	1	150	32	-	-	
Gas and fume poisoning	29	-	-	-	-	6	1	6	-	11	-	3	-	2	-	28	1	5	5	
Lead poisoning	16	-	-	-	-	5	-	4	-	4	-	2	-	1	-	16	-	2	2	
Silicosis	16	-	-	-	-	4	-	2	-	1	-	4	-	5	-	16	-	9	9	
Pneumoconiosis	12	-	-	1	-	-	-	4	-	3	-	4	-	-	-	12	-	9	9	
Anthrax	7	-	-	-	-	4	-	-	-	2	-	-	-	1	-	7	-	-	-	
Benzol poisoning	3	-	-	-	-	-	-	2	-	-	1	-	-	-	-	2	1	1	1	
Total	265	2	1	10	4	74	12	58	10	48	6	25	-	14	1	231	34	26	-	

Dermatitis

There were 182 cases of dermatitis investigated, affecting 150 men and 32 women. The following table is an illustration of these cases by industry, age and sex.

Dermatitis Cases Investigated During the Year Ending November 30, 1934, by Industry, Age, and Sex

Industry	Total Cases	Total M. F.	16-17 M. F.	18-20 M. F.	21-30 M. F.	31-40 M. F.	41-50 M. F.	51-60 M. F.	61-69 M. F.								
Tanneries	54	49	5	2	5	12	1	17	2	8	2	2	-	3	-		
Textile Mills	28	26	2	-	1	9	2	9	-	4	-	1	-	2	-		
Shoes and shoe findings	19	11	8	-	-	1	5	1	3	5	2	-	1	-	1		
Rubber goods	11	9	2	-	-	2	-	4	2	-	2	-	1	-	-		
Printing and publishing	9	9	-	-	-	1	-	6	-	1	-	1	-	-	-		
Food products	9	6	3	-	1	-	1	1	3	-	2	-	-	-	-		
Electrical manufacturing	9	4	5	-	-	-	-	-	3	-	1	-	1	4	-		
Chemicals	6	6	-	-	-	-	3	-	1	-	2	-	-	-	-		
Metal goods	5	4	1	-	-	-	1	-	-	1	2	-	1	-	-		
Sporting goods	4	2	2	-	-	2	-	2	-	-	-	-	-	-	-		
Automobiles	4	4	-	-	-	-	1	-	1	-	1	-	1	-	-		
Wearing apparel	3	3	-	-	-	-	2	-	-	-	1	-	-	-	-		
Leather goods	2	2	-	-	-	-	2	-	-	-	-	-	-	-	-		
Machinery	2	2	-	-	-	-	2	-	-	-	-	-	-	-	-		
All other	17	13	4	-	-	-	5	1	5	1	2	2	1	-	-		
Total	182	150	32	2	1	9	4	55	11	40	10	27	5	12	-	5	1

Employees suffering from this illness were employed at the following occupations:

Tanneries: Glaziers, wheelmen, seasoners, and beamhouse workers.

Textile mills: Wet finisher, color mixer, backtenders, and dyers.

Shoe manufacturing: Treers, stitchers, lasters, and shoe dressers.

Rubber goods: Spreaders, buffers, and calender operators.

Printing and publishing: Offset pressmen, cleaning plates, and mixing inks.

Miscellaneous: Food packer, solderer, sifter of dry compounds, polisher, mechanic, plater, bookbinder, and many operators of machines.

The causation of disease was traced to the following conditions:

Tanneries: Handling of chromed skins and skins soaked in other strong solutions.

Textile mills: Contact with dyes, washing color trays, and handling colored fabrics, caustic and acid solutions.

Shoe manufacturing: Handling cement, shoe cleaners, shoe dressings and colored leathers.

Other industries: Contact with dust from buffing rubber, acids, cleaning agents, and other irritants.

Gas and Fume Poisoning

There were 29 cases of gas and fume poisoning investigated during the year, 28 men and one woman. Five of the total number were fatal. The following table shows these cases by industry, age and sex.

Gas and Fume Poisoning Cases Investigated During the Year Ending November 30, 1934, by Industry, Age, and Sex

Industry	Total Cases	Total M. F.	21-30 M. F.	31-40 M. F.	41-50 M. F.	51-60 M. F.	61-69 M. F.	Fatal M. F.							
Petroleum products	4	4	-	1	-	1	-	1	-	1	-	1	-	-	-
Building operations	4	4	-	-	1	-	-	2	-	1	-	-	-	-	-
Auto sales and service	3	3	-	2	1	-	-	-	-	-	-	-	-	-	-
Textile	3	3	-	-	-	-	2	-	1	-	-	-	-	-	-
Garages	2	2	-	1	-	1	-	-	-	-	-	-	-	-	1
Metal goods	2	2	-	-	-	-	2	-	-	-	-	-	-	-	-
Machine shop	2	2	-	-	1	-	1	-	-	-	-	-	-	-	1
All other	9	8	1	2	1	1	-	5	-	-	-	-	-	-	2
Total	29	28	1	6	1	6	-	11	-	3	-	2	-	-	5

Employees suffering from this illness were employed at the following occupations: Laboratory work, gas station attendants, repairing a tunnel, automobile mechanics, and chemical mixer.

Lead Poisoning

There were sixteen cases of lead poisoning investigated. All were men. Two of this number were fatal cases. A large number of these men were employed in the handling of paint, one man operated a cable, while others were engaged in lead burning and smelting. The following illustrates these cases by industry, age, and sex.

*Lead Poisoning Cases Investigated During the Year Ending November 30, 1934,
by Industry, Age, and Sex*

Industry	Total Cases	Total M. F.	21-30 M. F.	31-40 M. F.	41-50 M. F.	51-60 M. F.	61— M. F.	Fatal M. F.
Painting	3	3	—	—	—	2	—	1
Foundry	3	3	2	—	—	1	—	—
Paint manufacturing	2	2	1	—	—	—	—	1
Petroleum products	2	2	—	—	2	—	—	—
All others	6	6	2	2	1	—	1	1
Total	16	16	—	5	4	4	2	2

Silicosis

There were sixteen cases of silicosis investigated during the year. Nine of this number were fatal. Six men were employed in the manufacture of stoves as moulders and sandblasters and were exposed to much fine sand dust. Four of these were fatal cases. Six other men worked about sandblasting machines in foundries and were constantly in a very dusty atmosphere. Two of these men died as a result of this exposure. Four men employed around stone crushers were also exposed to silica dust, and three of them died from the effects of this dust. Investigation showed that in some cases these men began to suffer from this disease several years ago, before the more modern and approved systems of sand blasting were introduced. In some instances the workmen did not use the masks or exhaust attachments that were provided.

Pneumoconiosis

There were twelve cases of pneumoconiosis investigated, nine of which were fatal. All of these cases happened to men. Six cases, all fatal, occurred in the granite industry. These men operated surfacing machines and used pneumatic hand tools on granite in an exceedingly dusty atmosphere and, even though masks, respirators, and exhaust systems were provided, they inhaled much dust. Three men were employed at dry weaving in the manufacture of brake linings and they inhaled a good deal of asbestos dust. One of these cases ended fatally. The process of wet weaving has been since introduced, and has greatly reduced this hazard. Two fatal cases were caused by the inhalation of powder. One man employed as a lithographer used a bronze powder in his work and another employed in a paper mill used a blue dye in powder form. Both of these men were fatally affected by the inhalation of these powders. A boy eighteen years of age employed making toys inhaled sawdust. The machine he worked at had a fan equipment but this was inadequate and he was made ill from the sawdust that he inhaled.

Anthrax

There were seven cases of anthrax investigated during the year, none of which were fatal. Six of the seven cases occurred in tanneries. These men handled skins that were imported from foreign countries. The other man was employed as a longshoreman and handled imported hides and wool. Boots, armlets, aprons and gloves are provided and used in the tanneries as preventatives, and the employees are urged to report any sore at the first aid room immediately.

Benzol Poisoning

Three cases of benzol poisoning were investigated affecting two men and one woman. One case proved fatal. This man worked in an optical establishment and tested lenses in a solution containing benzol. A man employed as a healer in a shoe factory was exposed to the concentrated fumes of a cement containing 50% benzol. The woman affected by this illness cemented necks onto hot water bottles with a cement that contained benzol.

RULES PERTAINING TO STRUCTURAL PAINTING

In 1915, the first code for the prevention of accidents in the painting industry was adopted. It was in operation for eleven years. Experience in the enforcement of its provisions indicated certain amendments as necessary. In 1926, changes were made in accordance with experience gained from the investigation of accidents and the regulations were strengthened to a marked degree. The present revision

came when joint committees were appointed under authority given in the statute and were adopted on September 7, 1933, after a year's consideration. Fourteen formal meetings were held in addition to conferences of sub-committees and trade groups, and finally the department voted on August 17th to adopt the rules and regulations as presented by the committees, deciding that these should become effective on November 1, 1933. Fundamentally the rules require that only he who is qualified by law shall construct the workplace for an employee engaged in this dangerous employment.

While these regulations became effective November 1, 1933, it was a matter of two months afterwards before they became operative. In many respects they constituted a radical departure from the previous rules and regulations for the prevention of accidents in this industry. Thus it was provided that a painter's rigger examined and certificated by the department, be employed by every employer using rigging in painting operations and employing workmen. Then again the department was authorized to approve the design of stage beds, hangers, life belts, trestle ladders, extension planks, extension roof boards, scaffold and ladder jacks and certain other types of supporting devices. These are but a few of the outstanding requirements in the present painting code. To be examined and certificated by the department, a board of examiners was created by the commissioner, and Mr. James J. Mara of Concord, representing the Massachusetts State Conference, Brotherhood of Painters, Decorators and Paperhangers of America, and Mr. John Lingard of Stoneham, representing the Society of Master Painters and Decorators of Massachusetts, were appointed for this purpose. Mr. John R. Dexter, chief inspector in the Division of Industrial Safety, was appointed as chairman of this board. The regulations provided for the registration of rigging, requiring a written statement from a firm or person employing a workman in this trade containing a list of the rigging used and that all equipment is in good condition and conforms to the rules and regulations for this purpose. For the issuance of a registration for such rigging a payment was made of fifty cents by the applicant. Employment of painter's rigger was provided for in the regulations of at least one person qualified as such by satisfactorily passing an examination prescribed by the department. The examination fee was fixed at one dollar which was to be paid at the time of examination. An applicant failing could be re-examined on the payment of additional fee. During the year there were 2,245 certificates of rigging issued. To qualify as painter's rigger, 4,321 submitted to examination. Of this number, 3,137 successfully met the requirements; 1,176 failed; while eight did not complete the examination.

There was paid into the state treasury for examination fees and the registration of rigging the sum of \$5,443.50. The examiners report that at the beginning of their work they found many men engaged in the painting industry who did not use any safety devices for their protection on either swing staging or interior built-up staging, and were hostile to their provisions. When the purpose of these rules was made known to the employers and the requirements fully explained, there was prompt co-operation among the painters. Examinations were held in the office of the Department of Labor and Industries, Room 473, State House and in the branch offices at Fall River, Lawrence, Pittsfield, Springfield and Worcester. In an effort to make this service accessible to men living at a distance from these cities, examinations were held in Brockton, Falmouth, Fitchburg, Haverhill, Lowell and New Bedford.

PUBLIC WORKS

State projects for the construction of public works including the building of roadways, the construction of walls and bridges, and the erection of schoolhouses were given regular inspection. On road construction operations there were 508 inspections and 325 on other public works projects. The total appropriation of the Department of Public Works for this purpose was \$7,108,459.40; and \$4,999,923.25 was received from the United States government on federal aided projects. For emergency public works construction — 30% to be paid by the Federal Government — there was expended the sum of \$3,680,694.16. The maximum number of men employed by contractors on highway contracts at any one time, not including state employees, was 7,560. There were 22 complaints received from the public relating to the state operations as follows: prevailing

rate, 6; veterans' preference, 6; citizens' preference, 5; overtime employment, 4; laborers' vacations, 1. There were but seven orders issued, five relative to the eight-hour day and two concerning the citizens' preference act. In six cases prosecution was resorted to.

LABORERS' VACATION LAW

There is no penalty provided for in the statute for a municipal official or other person who violates the laborers' vacation law. The department, in the enforcement of this statute, has found it necessary to bring action in the Supreme Judicial Court, to protect the rights of employees who have qualified for such vacations under the law.

In the City of Springfield, the superintendent of public buildings was the respondent in a case in which it was alleged that vacations were refused laborers. In this case the superintendent had charge of the employment of janitors, firemen and other laborers employed in connection with the public buildings of the city. An employee who had been suspended from his work for alleged reasons of economy appeared to have actually worked for the city for thirty-two weeks in the aggregate for the preceding twelve months. Request was made by the department to grant the annual vacation which the employee was entitled to under the statute and this request was denied. Whereupon the commissioner of this department petitioned the Supreme Judicial Court that a writ of mandamus should issue against the respondent commanding him to authorize and grant the two weeks' vacation with pay. On December 20, 1933, the Supreme Judicial Court, through Justice William Cushing Wait, ordered that a writ of mandamus issue under these circumstances as prayed for by the Department of Labor and Industries. An appeal was thereupon made to the full court by the city solicitor and the case is now pending. Its determination will have an important bearing on the attitude of other cities and towns towards this statute.

The Legislature of 1914 enacted the Laborers' Vacation Law. In substance it provided that all persons classified as laborers, or doing the work of laborers and regularly employed by cities and towns for more than one year should be granted a vacation of not less than two weeks during each year of their employment, without loss of pay.

In 1927, the legislature amended this law with certain provisions which were designed to make clearer the requirements for laborers' vacations; and again for the same reason the statute was amended in 1932.

Laborers' vacations have come to be a tangible part of the voluntary employment contract of municipal employees. Failure to keep such a contract with an employee is as reprehensible as to fail to pay the wages which he has earned. The Committee on Public Service of the Massachusetts Legislature had before it last year a bill defining certain provisions in the laborers' vacation law and with the knowledge that appeal was made in this case from the single justice to the full bench, gave it reference to the General Court of 1935.

There is but very little difficulty in some cities and towns in the operation of this law, especially where there is a proper understanding of the statutory obligations resting upon the local authorities. During the year conferences were held with the officials of cities and towns where this law was in question and difficulties were removed when explanation was made.

WEEKLY PAYMENT LAW

There was a total of 2,871 complaints alleging violation of the weekly payment of wages law. The administration of this statute continues to be a great service to the working people of the state. The amounts involved were usually small in most cases and to secure legal assistance would be to impose a burden upon the employee. Workmen who have been victimized in this respect come to the department with their complaints and are given practical help in their troubles. To bring relief to those in needy circumstances, special effort was made to cause the employer to speedily pay the amount due. After a personal interview with the complainant, the facts in each case are entered upon forms used for this purpose. Noted therein are questions designed to establish the jurisdiction of the department and to satisfy the requirements of the statute in case of prosecution. The employer is then notified by correspondence of the amount due and if payment is not made

promptly demand is made by the special investigator of the division. Personal interviews take place with the complainants in nearly every case and facts secured indicating where the work was done and the amount of wages due. Defrauding the laborer of his wages usually means that serious injury is imposed on his family. Police authorities and court officials, public welfare organizations and other agencies continue to advise employees who have failed to secure their wages, to avail themselves of the services given by the department. In the handling of these cases effort was made to prevent loss of time on the part of employees. Through correspondence they were kept advised on the progress made in their cases. This was frequently necessary when continuances were granted in court cases to enable the employer to pay the wages earned by the workman. Special effort to reconcile all parties was made and when it appeared that a dispute existed as to the amount due for services, daily conferences in such cases were made the regular procedure, the counsel and the weekly payment investigator giving much of their time to this work. There was a total of 489 of these conferences which were attended nearly always by the attorney for the defendant. As a result of this practice either the employer agreed to pay the wages of the employee or the case presented to the court with the differences between the parties reduced to a minimum. The sum of \$58,366.45 was paid by employers to workmen after notification was given that complaint was filed with the department alleging failure to comply with the requirements of the weekly payment of wages law. During the year, 5,132 persons called at the department's offices believing they had cause to complain where wages were owed them; 2,645 complaints were allowed by the department and of this group, 1,563 reported payment in full. In 2,487, other cases not taken by the department, the reason is given as follows: No jurisdiction, 682; domestic service, 222; insufficient data, 152; farm work, 99; making inquiry on law, 611; commissions involved, 160; where valid set-offs existed, 131; N. R. A. matter, 72; where cases were outlawed, 174; wages earned on contract basis, 118; where disputes existed, 66.

Advice to employees in bankruptcy proceedings was given. This included instructions concerning the filing of the proof of claim within the statutory period and other provisions necessary to participate in the dividends. Employees who complained of irregularities in connection with the assignment of their wages, or alleged that the sum withheld from their earnings under the trustee process was larger than the amount provided by law, came frequently to the office for information. In each of these cases the statutory requirements were made known to the employee, and if error in procedure under either process was apparent, the employer was notified if it appeared that violation of the weekly payment of wages law had taken place.

REPORT OF THE LEGAL DEPARTMENT

Mr. Joseph Monette, counsel for the Department of Labor and Industries, reports on the legal activities for the year as follows:

1,045 Prosecutions:

698 guilty; 74 not guilty; 209 dismissed; 64 defaults.

698 Guilty cases consisted of the following violations:

330 Wage complaints

321 Women and minors violations

41 Violations of structural painting rules

6 Public works violations

The penalties in the 698 Guilty findings were as follows:

330 Wage Complaints:

- On 1 count a defendant was sentenced to 2 months in the House of Correction.
- On 2 counts a defendant was sentenced to 4 weeks in the House of Correction.
- On 5 counts a defendant was fined \$250 — jailed for non-payment of fine.
- On 6 counts a defendant was fined \$25 each count — jailed for non-payment of fine.

- On 4 counts a defendant was fined \$75 — jailed for non-payment of fine.
- On 1 count a defendant was fined \$50 — jailed for non-payment of fine.
- On 3 counts a defendant was fined \$100 — payment suspended, placed on probation.
- On 52 counts other defendants were fined from \$10 to \$50.
- On 19 counts other defendants were given suspended sentences from 1 to 3 months.
- On 132 counts other defendants were placed on probation, wages being paid through the courts.
- On 105 counts other defendants' cases were placed on file, wages paid.

321 Women and Minors Violations:

- On 10 counts 2 defendants were each fined totals of \$150;
 - 3 counts employment at time other than stated on the printed notice.
 - 4 counts failure to procure certificate.
 - 2 counts employment of minors where intoxicant beverages handled and sold.
 - 1 count illegal advertising.
- On 4 counts a defendant was fined a total of \$120;
 - 1 count failing to post time notice.
 - 1 count overtime employment.
 - 1 count failing to procure certificate.
 - 1 count employment of minor after 10 p.m.
- On 12 counts a defendant was fined a total of \$100;
 - 12 counts employment at time other than stated on printed notice.
- On 4 counts a defendant fined total of \$80;
 - 1 count illegal employment of minor.
 - 1 count failing to post time notice.
 - 1 count failing to procure certificate.
 - 1 count employment of minor after 10 p.m.
- On 4 counts a defendant was fined total of \$70;
 - 1 count failing to procure certificate.
 - 1 count failing to post time notice.
 - 1 count employment of minor after 6 p.m.
 - 1 count overtime employment.
- On 10 counts 2 defendants were fined totals of \$60 each;
 - 2 counts employment at time other than stated.
 - 2 counts overtime employment.
 - 6 counts illegal employment of minors.
- On 73 counts 18 defendants were fined totals of \$50 each;
 - 29 counts employment at time other than stated on printed notice.
 - 32 counts overtime employment.
 - 6 counts failing to procure certificates.
 - 3 counts failing to post time notice.
 - 3 counts employment of minors after 10 p.m.
- On 4 counts 2 defendants were each fined \$25;
 - 2 counts employment at time other than stated on printed notice.
 - 2 counts employment of minors after 10 p.m.
- On 10 counts 2 defendants were each fined totals of \$20;
 - 5 counts failing to post time notice.
 - 2 counts employment of minors after 10 p.m.
 - 1 count employment of minor after 6 p.m.
 - 1 count employment of minor more than six days a week.
 - 1 count failing to procure certificate.
- On 25 counts 7 defendants were each fined totals of \$10;
 - 7 counts failing to procure certificates.
 - 7 counts employment at time other than stated on printed notice.
 - 3 counts employment after 6 p.m.
 - 2 counts employment after 10 p.m.
 - 2 counts failing to post time notice.
 - 2 counts permitting minors to be employed where intoxicant beverages handled and sold.

1 count illegal employment of minor.
 1 count permitting a minor under 18 to operate motor vehicle.
 On 6 counts 2 defendants cases were placed on probation;
 4 counts illegal employment of newsboys.
 1 count failing to post time notice.
 1 count overtime employment.
 On 28 counts 8 defendants' cases were filed on payment of court costs;
 12 counts employment at time other than stated on printed notice.
 11 counts overtime employment.
 3 counts failing to post time notice.
 1 count failing to provide first aid.
 1 count failing to allow 45-minute lunch period.
 On 131 counts 32 defendants' cases were filed;
 60 counts employment at time other than stated on printed notice.
 28 counts overtime employment.
 13 counts failing to post time notice.
 10 counts failing to pay monetary compensation.
 9 counts illegal employment of minors.
 3 counts violation of one day's rest in seven law.
 1 count locked-door violation.
 1 count employment of minor after 6 p.m.
 6 counts failing to procure certificates.

41 Violations Structural Painting Rules:

On 3 counts a defendant was fined \$25.
 On 1 count a defendant was fined \$10.
 On 4 counts a defendant's case was filed on payment of court costs.
 On 33 counts 9 defendants' cases were placed on file.

6 Public Works Violations:

On 6 counts overtime on public works, a defendant's case was filed.

On 111 counts violation of labor laws, defendants appealed from findings in the lower court. These included 64 wage complaints; 32 women and minors which have been reached and disposed of in the Superior Court; and 15 others (10 wages and 5 public works violations) which are still pending before the court.

32 Counts: Violations Women and Minors Laws:

<i>Lower Court</i>	<i>Superior Court</i>
On 3 counts a defendant was fined \$100;	Lower court sustained.
On 6 counts a defendant was fined 60;	Lower court sustained.
On 2 counts a defendant was fined 20;	Filed.
On 5 counts a defendant was fined 10;	Filed.
On 2 counts a defendant was fined 50;	Not guilty.
On 12 counts a defendant was fined 50;	Fined \$100.
On 2 counts a defendant was fined 10;	Lower court sustained.

64 Counts: Wage Complaints:

<i>Lower Court</i>	<i>Superior Court</i>
On 5 counts a defendant was sentenced 10 months;	Lower court sustained.
On 1 count a defendant was sentenced 1 month;	Lower court sustained.
On 2 counts a defendant was sentenced 1 month;	Fined \$25 on each count.
On 1 count a defendant was fined \$50;	Filed; wages paid.
On 2 counts a defendant was sentenced 60 days;	Probation.
On 14 counts a defendant was sentenced 2 months;	Fined \$10 on each of 5 counts; others filed.
On 22 counts a defendant was fined \$50 on each count;	Probation.
On 3 counts a defendant was sentenced to 2 months;	Probation.
On 4 counts a defendant was fined \$10 on 1 count;	Fined \$75; jailed on failure to pay fine.
On 10 counts a defendant was fined \$175;	Probation.

During the year the department assisted 482 persons in making application at the clerks' offices in the various courts, for hearings under the provisions of section 149, chapter 149 of the General Laws. After hearings by the courts, complaints were not issued for the following reasons:

194 where agreement was reached between the parties.
 109 where wages were paid.
 93 where complaining parties did not appear.
 57 where disputes existed.
 6 where valid set-offs appeared.

- 6 where insufficient evidence.
- 5 where defendants were in bankruptcy.
- 3 where complaints were brought against trustees of estate.
- 2 where partnership was involved between complainant and defendant.
- 2 where contracts existed.
- 1 where defendant died.
- 1 where wages were attached.
- 1 where lapse of time for filing complaint too long.
- 1 where complainant had already secured judgment in civil court.
- 1 where defendant was located outside Massachusetts.

In the 698 Guilty findings, violations occurred in the following industries:

330 Wage Complaints:

- 120 counts occurred among contractors.
- 78 counts occurred in mercantile establishments.
- 49 counts occurred in manufacturing establishments.
- 38 counts occurred in bakeries.
- 18 counts occurred in mechanical establishments.
- 12 counts occurred in workshops.
- 9 counts occurred in foundries.
- 4 counts occurred in express companies.
- 2 counts occurred in hotels.

321 Women and Minors Violations:

- 128 counts occurred in mercantile establishments.
- 116 counts occurred in manufacturing establishments.
- 20 counts occurred in hotels.
- 19 counts occurred in mechanical establishments.
- 16 counts occurred in workshops.
- 11 counts occurred in street trades (newsboys).
- 6 counts occurred in cranberry bogs.
- 5 counts occurred in bakeries.

41 Violations of Structural Painting Rules occurred among contractors.

6 Violations on public works by a contractor.

The sum of \$58,366.45 was paid by employers after the department had acted on the complaints of employees from December 1, 1933, to November 30, 1934.

WORK OF BRANCH OFFICES

From the branch offices, located in Fall River, Lawrence, Pittsfield, Springfield and Worcester, daily reports are received. These indicate the nature of service rendered to the public. Time notices for women and minors and schedules in connection with the one day's rest in seven law, together with bulletins containing rules and regulations for safeguarding machinery; toilet and washing facilities; foundry requirements; industrial lighting; building operations and structural painting; and other provisions enforced by the department are available for distribution. This service is appreciated by manufacturing concerns and other groups who have contact with the department. Complaints alleging violation of the weekly payment of wages law are received and given prompt attention. Conferences are arranged between workmen and employers when disputes arise as to the amounts due and are settled to the satisfaction of the interested parties. Complainants are advised in these cases and the correct procedure explained in connection with court action when this is necessary. Telephone calls from industrial establishments for information provide the opportunity for the branch office to give prompt service in important matters. Workmen come seeking information in regard to injuries sustained in their employment and these cases are brought to the attention of the Department of Industrial Accidents. There is good co-operation between the two departments in this work and it is appreciated by workmen who are rendered service by this arrangement. Problems concerning the work of women and minors, and the certification of employed children, the provisions concerning one day's rest in seven, and Sunday employment and other requirements of the labor laws come to the attention of the office and prompt service is given the public.

NEW DUTIES ASSIGNED BY THE LEGISLATURE OF 1934

Chapter 74 increased temporarily the amount of wages exempt from attachment by trustee process on claims for necessities furnished to a defendant or to his family. It provided as follows: "If wages for personal labor and services of a defendant are attached by trustee process on a claim for necessities furnished to him or to his family and the writ contains a statement to that effect, an amount not exceeding \$15 shall be reserved in the hands of the trustee and shall be exempt from such attachment, the provisions of section twenty-eight of chapter two hundred and forty-six of the General Laws to the contrary notwithstanding." This enactment is important in the enforcement of the weekly payment law and is based upon the principle that wage earners in such an action should be assured of an adequate amount from their weekly earnings in these cases to maintain and support the financial management of the home.

Chapter 132 authorized the department to impose fees for certificates of registration and for persons who qualify as a painter's rigger in the rules and regulations pertaining to structural painting. Further reference to these provisions is found elsewhere in this report.

Chapter 233 regulated the employment of armed guards in connection with strikes, lockouts, and other labor troubles. This is a very important measure and it provides that no person during the continuance of a strike, lockout or other labor trouble shall directly or indirectly employ or procure for the protection of his employees any armed guards other than watchmen regularly employed by such person, police officers or persons licensed under sections twenty-three to thirty, inclusive, of chapter one hundred and forty-seven or employees of such licensees. This provision, however, does not authorize the employing or procuring of any such licensee unless he shall have been so licensed at least two months prior to the commencement of such labor trouble, or of any employee of such a licensee unless such employee is a citizen of Massachusetts, and shall not have been convicted of a felony. This legislation is section 23a, chapter 149 of the General Laws.

Chapter 255 required the proper heating of factories and certain other establishments during the winter months. This enactment amended section 113, chapter 149 of the General Laws so that the department is authorized to make reasonable rules and regulations establishing minimum requirements to keep workrooms properly heated in factories, workshops, manufacturing, mechanical and mercantile establishments.

Chapter 292 provided for extra compensation under the Workmen's Compensation Law for injured minors when employed in violation of certain statutes. The employment of any minor known to be such in violation of any provision of sections sixty to seventy-four, inclusive, or of section one hundred and four of chapter one hundred and forty-nine, is made to constitute serious and wilful misconduct under section twenty-eight of chapter one hundred and fifty-two of the General Laws and provides that the amounts of compensation provided shall be doubled. This means that if a child under fourteen years of age is employed in or about or in connection with an industrial establishment and becomes injured in the course of such employment, the employers will be guilty of serious and wilful misconduct under this law and double compensation shall be paid. If a child is employed in violation of the restrictions as to the number of hours he may work and becomes injured, he falls into the same category. This is, if he is under sixteen years of age and is employed before 6:30 in the morning or after six o'clock in the evening, or more than eight hours in one day or more than forty-eight hours in a week, and becomes injured in the course of his employment while permitted to work in violation of these requirements, the employer will be held guilty of serious and wilful misconduct. Such violations of sections 60 to 74, inclusive, or of section 104, chapter 149 of the General Laws shall be reported by the Department of Labor and Industries to the Department of Industrial Accidents.

Chapter 283 is an act relative to the observance of Armistice Day and provides that all laws, statutes, orders, decrees, rules and regulations regulating the observance of the Lord's Day shall be applicable to November 11 between the hours of seven o'clock ante meridian and one o'clock post meridian, or during the same hours on the day following when November 11 occurs on Sunday. These requirements now include the provisions contained in section 51, chapter 149 of the Gen-

eral Laws which obliges the employer to post a list of employees who are required or allowed to work on this holiday between 7 a.m. and 1 p.m., and to file copy of such schedule with this department.

Chapter 34 being a resolve requiring the Department of Labor and Industries to determine what suitable safety devices or other reasonable means or requirements for the prevention of accidents and the prevention of industrial or occupational diseases in the granite or siliceous industries of the commonwealth and to make reasonable rules, regulations and orders applicable to all persons engaged in the industries for this purpose.

MARY KENNEY O'SULLIVAN

After approximately twenty years in the service of the commonwealth as an inspector in the Department of Labor and Industries, Mrs. Mary Kenney O'Sullivan retired on January 7, 1934. She was a veteran in the experience of employment relationship and an early pioneer in the work of enforcing law protecting the well-being of employees. Her associates gathered on the day of her retirement at a reception held in her honor in the State House. On this occasion, she received gracious tribute from her friends to whom she left memories of her devotion to high ideals.

Mrs. O'Sullivan was born in 1864, in Hannibal, Missouri, of parents who had left New Hampshire a few years before to settle in the growing West, and in her early life became employed in the bookbinding industry. In the early Nineties, she was associated with Jane Addams, the founder of Hull House in Chicago, and when the fortieth anniversary of this social center was held in that city, in 1930, she had a prominent part as speaker among the distinguished guests who were to address the Hull House Associates and its friends.

About the year 1893, Governor Altgeld of Illinois made her acquaintance at an important child-labor convention in his state. Impressed with the force of her personality and her deep interest in urging the adoption of labor legislation before the Illinois Legislature at Springfield, Illinois, he appointed her a factory inspector and she was engaged in the service of that state for several years. This was the beginning of a long and active career. She was afterward appointed as the first woman national organizer for the American Federation of Labor, and taking up her residence in Boston was actively engaged in the labor movement for many years. Here she made lifelong friendships with notable people, including Justice Brandeis, now of the Supreme Court of the United States, who in those days was looked upon as sympathetic with the work which Mrs. O'Sullivan was doing. Her experience was freely given in an advisory capacity to groups in the community who actively engaged in supporting legislation for the protection of the human side of industry, and in restricting the hours of labor for women and children.

REPORT OF THE BOARD OF CONCILIATION AND ARBITRATION

EDWARD FISHER, *Chairman*, RAYMOND V. McNAMARA, JOHN L. CAMPOS

On December 1, 1933, twelve joint applications were pending. During the year sixty-three joint applications were filed, making a total of seventy-five. Of these eleven were abandoned, withdrawn or settled; decisions were rendered in sixty-four cases, also three supplemental decisions; and one case is now pending.

CONCILIATION

In the report for the preceding year, attention was called to the fact that the duties of the Board had been very exacting by reason of the industrial conditions with the accompanying industrial disputes. During the present year, with the continued depression, even more controversies have arisen between employer and employee, making more onerous the duties of the Board and presenting many and varied problems in industrial conflicts, many of a nature difficult of solution. As a result, a policy of visiting as a Board the centers where such controversies exist for the purpose of conferring with the representatives of the employers and of the employees, has been adopted. The results have been very reassuring, affording an opportunity for giving more prompt attention thereto, with the accompanying

convenience to the parties to the controversy and offering the further opportunity of securing additional information in the locality itself, together with a clearer understanding locally of the cause and effect of the industrial strife.

With the advent of the N. I. R. A. and the right of collective bargaining under the provisions of Section 7-A, naturally a stimulus was given to organization or attempted organization of employees in industrial and other occupations, not only by established and accredited unions, but by new and reorganized unions as well. In this rush for organization apparently the rights and privileges of unorganized employees, the continued operation of industrial plants and the welfare of the community have, in some instances at least, been lost sight of, resulting in the awakening of the public to the fact that the right to work is as fundamental as the union's contention of the right to strike. This desire for the immediate organization of employees has resulted in numerous labor controversies, especially in the textile industry.

With the advent of the N. I. R. A. also, there followed the establishment of federal boards dealing with industrial and other relations between employer and employee which, by reason of no sufficient and definite line of demarcation as to their respective functions and duties, has resulted in some confusion and uncertainty. Also, this enlarging of the scope of federal jurisdiction has to a marked extent increased the entrance of its activities in the field of industrial disputes, responsibility relative to the attempted adjustment of which continues to rest with this Board as well. While the Board has endeavored to co-operate with these federal agencies in so far as practicable, nevertheless, some confusion and even delay has resulted. The right of collective bargaining above referred to, that is, the privilege of employees of dealing with their employer through representatives of their own choosing, has naturally during this trying period given rise to industrial disputes; the union employees in some instances being induced to seek a union shop, the employers in some instances seeking to limit their employees to choosing their representative for collective bargaining from the fellow employees. However, in all conferences where the issue has arisen the parties in joint conference with the Board have readily come to an understanding relative to the matter of collective bargaining.

In the spring a controversy arose in Peabody and vicinity between the employers in the tanning industry and the employees, which gave indication of a recurrence of the very serious conflict of the previous year. In an endeavor to forestall any such conflict the Board immediately visited Peabody and held conferences with the parties and through the co-operation and constructive leadership of those representing the employees and the employers an adjustment was reached and a general conflict avoided. A reference to this in more detailed outline is hereinafter given.

The labor controversy attended by the most publicity was that of the strike of employees of the Hamilton Woolen Company, Inc., at Southbridge, employing normally about 1000 operatives, to the attempted adjustment of which the Board devoted several weeks. The Board is, therefore, later in this report, giving a detailed outline of this controversy, although in doing so this outline extends beyond the period of the current year.

Late in the summer, the threatened general strike in the textile industry was called by the United Textile Workers of America, effective on September 4, and at that time or soon thereafter a deluge of strikes occurred in this industry. In many instances the management deemed it advisable to close the mills even though a majority of the employees desired to remain at work. The result has been not only an interruption of business, but also accompanying distress to the employees and disorder and a burden upon the community as well. This, as outlined above, has presented to the Board some difficult problems in its endeavor to secure an adjustment of the controversy, a reopening of the mill and the return of the employees to work. A brief outline of the activities and the results secured by the Board through its good offices follows.

Easthampton. — On March 23, the members of the Board visited Easthampton by reason of a strike of employees of the United Elastic Corporation, employing about 800 operatives, a great majority of whom ceased work on March 19. The issues presented included a demand for an increase in wage rates and a union agree-

ment. After a discussion of the issues at a joint conference with a committee of these employees and representatives of the company, an adjournment was had until March 28. At the conference on March 28, which lasted until after midnight, a settlement was reached and a written agreement entered into between the company and employees.

Peabody and Vicinity. — During the winter conferences were held between representatives of the tanners of Peabody, Salem and vicinity, members of the Massachusetts Leather Manufacturers' Association, and employees, members of the National Leather Workers' Association, and also with the Board in an endeavor to reach an agreement upon the terms of a new contract of employment. Recommendations covering the matters in dispute were submitted by the Board, but not accepted and while some progress was made no final basis of settlement was reached. Having received a notice that a strike had occurred which, if continued, would affect, directly and indirectly, about 7,000 employees, the Board on May 2 visited Peabody and held conferences with a committee of the employees and later in the afternoon with representatives of the employers, later submitting to the parties for acceptance recommendations for adjusting this controversy. Pending action on these recommendations, to their credit these employees, upon the urgent request of the Board, agreed that the hides in the vats would be taken care of in order to prevent what would have resulted in a severe loss. Following the acceptance of these recommendations by the employees and later by a great majority of the employers, a joint conference was held the following day by representatives of the parties and the Board at the Hawthorne Hotel in Salem, to carry out the details of the recommendations. However, at this conference unexpected and serious differences arose which threatened to halt a settlement. As a result, the Board conferred with the parties the next day and, following a joint conference held in the evening, a basis of settlement was reached, which was accepted by the parties and embodied in an agreement and work was resumed in most tanneries on the following Monday. Later other employers, not members of the association, signed similar agreements.

This agreement contained an unusual provision, the adoption of which removed a very serious obstacle to an adjustment being made. By its terms, any employee who had previous thereto been a member of, or had made application for membership in the union and had become "unfinancial," that is, in arrears in his financial obligations, was subject to discharge unless reinstated; the discharge to be ordered by this Board, notice of an employee's being "unfinancial" being first given by the union to his employer, the employer in turn giving notice to the Board. As a result the Board was called upon in many instances to act under this provision. The Board, however, adopted the policy of first giving notice and affording an opportunity to each delinquent to be heard.

TEXTILE INDUSTRY

During the general strike in the textile industry above referred to, which involved in excess of 70,000 employees, the Board appreciated that there was very little, if anything, that could be done towards securing settlements in the various communities affected. However, after the general strike was called off on September 24, with the resumption of employment many controversies arose, resulting in the cessation of work of some employees. In a marked degree, these strikes occurred in mills in the central and southern part of the state. The chief cause was alleged discriminations against union employees, following an effort on the part of these employees to secure in some instances union recognition and in others a union shop.

Grafton. — On October 18, the Board visited Grafton and conferred with representatives of the Wuskanut Mills, Inc., and later with representatives of the employees, members of Local No. 2362 of the United Textile Workers of America. It appeared that the employees, about 250 in number, quit work on October 18, having previously submitted demands which had not been granted. A joint conference of the parties was arranged for the afternoon and, after some discussion and with the advice and suggestions of the Board, an agreement upon these demands was reached, with a resumption of work.

On the same day, learning of another strike in this town of employees of the American Weavers, Inc., the Board visited and conferred with the officials of this

company, discussing the issues involved. It appeared that about 100 employees were on strike as the result of a demand made for a classification of work. A joint conference was then arranged and held later in the afternoon and early evening; it appearing at this time that an increase in wage rates was also demanded. After some discussion and at the suggestion of the Board, a basis of adjustment was reached, ending the controversy, and work was resumed.

Ludlow. — A serious labor controversy resulting in a strike of employees of the Ludlow Manufacturing Associates in Ludlow occurred about November 5, resulting ultimately in closing the mill, except the machine shop. Approximately 1,100 operatives were affected by this strike. On November 9, the Board visited Ludlow and conferred with the officials of the company and with representatives of the employees, members of Local No. 2400 of the United Textile Workers of America, resulting in a joint conference being held in the evening, at which the demands of the employees, including an increase in wage rates and a union shop, were presented. This conference was adjourned and resumed on November 13, at which time the Board submitted recommendations for adjusting the controversy, which were acceptable to the company, but were not accepted by the employees as no wage increase was provided for. As this industrial strife continued with some disturbances, the Board held a further conference with the parties at Ludlow on December 6, at which time further recommendations were submitted which were later accepted in writing by the parties, and work was resumed in so far as business conditions warranted.

Webster. — The Board, at the request of a committee of leading citizens, visited Webster on November 30 and conferred with them relative to differences arising between the employees, members of Local No. 2385 of the United Textile Workers of America, and the Slater Mills, Inc. (finishing mill). The issues involved were discussed with this committee and with representatives of the employees and later with officials of the company. As a result a conference was arranged, to be held with representatives of the company and of the employees on Monday evening, December 3, at Webster. At that time the Board conferred with representatives of the parties. After a full discussion of the differences, chief among which was a demand for a wage increase, the Board offered to appoint an expert to make an examination of the financial and industrial condition of the company relative to the question of justification for an increase in the wage rates. This suggestion proved to be acceptable, with the understanding that a further conference was to be held after such investigation was completed. The investigation completed, a conference was held later in Webster, at which time, after going over the report, it was agreed that a copy should be sent to the parties and, after allowing time for further consideration of the same, a further meeting should be held, pending which there was to be no labor controversy resulting in the cessation of work.

Dudley. — At the meeting with the citizens' committee in Webster on November 30, the matter of a strike of employees of the Stevens Linen Works in the adjoining town of Dudley, many of whom, however, lived in Webster, was also considered. This strike had been in effect since November 27, involving at least one-half of the employees. At that time there were between 700 and 800 operatives employed, although at times the company had employed a much larger number. After conferring with representatives of the employees, members of Local No. 2384 of the United Textile Workers of America, and with representatives of the company, it was arranged to hold a joint conference at Webster on the afternoon of December 3.

On December 3, the Board conferred with representatives of these employees, having been notified by the representative of the company that he would be unable to be present. The demands and grievances were outlined. The Board then stated that an endeavor would be made, after conferring with the officials of the company, to arrange a joint conference. Such joint conference was later held at the State House and after a discussion of the issues, which related chiefly to working conditions, although the issues of a union shop and wage increase were presented, it appeared that the real obstacle to an adjustment was the basis of these employees returning to work, some new employees having in the meantime been hired. Recommendations were submitted by the Board as a basis for settling this controversy, which were accepted by the company but rejected by the employees.

Later, however, a further joint conference was held at Webster and further recommendations submitted by the Board which were accepted by the parties and this controversy was settled with full resumption of work.

Southbridge. — The Hamilton Woolen Co., Inc., has operated its mill in Southbridge for over one hundred years and under its present management since its reorganization in 1927, normally employing about a thousand operatives and having during peak periods employed over twelve hundred, being the second largest industry in this town.

The strike occurred about four o'clock in the afternoon on November 14, nearly one-half of the employees quitting work on this and subsequent days. At this time the company was operating two shifts with nearly a thousand employees, having, as the Board is informed, taken orders mainly for the purpose of keeping the mill operating and which it was anticipated would furnish employment until at least February 1, of which the employees were aware.

The following is a brief outline of the facts leading up to, accompanying and following the strike. At the time of the general strike called by the United Textile Workers of America on September 4, and which was nation-wide, the operatives in this factory remained at work. However, two days after, the president of the company stated, by reason of the entrance of the flying squadrons, so-called, the mill closed. The mill reopened on September 24, as requested by the President of the United States, when the general strike was called off. Thereafter, apparently differences arose between the company and its employees, members of the newly organized local of the United Textile Workers of America, relative to alleged discrimination against and threatened discharge of members of this local, resulting in the cessation of work of a substantial number of these employees on September 27.

On September 28, the Board visited Southbridge and interviewed Richard Lennihan, president, B. Loring Young, a director and counsel for the company, and other officials and also conferred with a committee of the striking employees, consisting of Ira R. Dickens, organizer of the United Textile Workers of America; Thomas Flynn, organizer; Jean Gauthier, president; Paul Vermiere, vice-president; Catherine Reilly, recording secretary, and Vivian Labonte, secretary of this local. As a result, the Board arranged a joint conference in the afternoon, the company being represented by Messrs. Lennihan and Young and the employees by the above-named committee. There was a general presentation of complaints and differences and also of demands for a union shop and wage increase. The Board centered its discussion on the issue of union recognition under the collective-bargaining provision of Article 7-A of the National Industrial Recovery Act, the parties readily coming to an understanding as the representatives of the company expressed their willingness to take up grievances or other issues which might arise with any representatives these employees might choose, and a tentative understanding was reached relative to the procedure for presenting such differences. It was also orally agreed that any differences which the parties were unable to adjust would be submitted to the Board for determination, pending which there would be no strike or lockout. In the meantime the employees were to return to work without discrimination. This basis for adjusting the controversy, while meeting with the approval of this committee, was subject to acceptance by the employees at their meeting held that evening. The Board was later informed of such acceptance and the employees returned to work on October 1.

No notice or information was received of any differences arising between the company and the employees until late in the evening of November 14. The Board was notified that evening by counsel for the company that a strike had occurred in the mill late that afternoon. The chairman endeavored to get in communication with Joseph Sylvia, an organizer of this union, who, it was understood, had been present when the strike was called, but was unable to do so. However, the Board visited Southbridge on Friday, November 16, and conferred with Mr. Dickens relative to the matter. Mr. Dickens stated that complaint had been made to the Textile Labor Relations Board that day, claiming discrimination against union employees, and also stated that he was going to Washington and would then inform the chairman whether or not the committee would again enter a conference, as requested by the Board, it being called to his attention that there was a failure on the part of the striking employees to abide by the terms of the settlement made at the previous conference.

The Board then visited the office of the company and interviewed Mr. Lennihan and other officials, who stated that various complaints had been made by representatives of the union employees which had been taken up and investigated by the company and discussed with the employees' representatives; that no notice had been given to the company of this intended strike; nor were any demands made until the morning of November 16 when the following written demands were received:

1. Union shop.	3. Increase of wages.
2. Reduction of machine load.	4. Equal distribution of work.

Mr. Lennihan also stated that when the strike occurred he had made request through the chief of police, who was at the mill, to have Miss Gauthier, the president, call and discuss the cause of the strike with him, but was informed that she declined to do so. He further stated the second shift had been discontinued.

The chairman received a telephone communication from Mr. Dickens on November 18 and, as a result, a joint conference was held in Southbridge on November 19. At this conference, the company was represented by Messrs. Lennihan, Young, Ross G. Walker, treasurer, and James T. Sutcliffe, production manager, and the employees by Mr. Sylvia and the committee, with the exception of Mr. Flynn, who were in attendance at the conference on September 28. At this conference the issues were discussed, including cases of discrimination, some of which had previous to this conference been presented to and discussed by the Board with Mr. Lennihan and other officials. Following this discussion, an understanding was reached as to the procedure for taking up any grievances and complaints which might thereafter arise and such as the parties were unable to adjust were to be submitted to the Board for determination.

The question of a union shop was temporarily, at least, dismissed. Questions relative to the stretch-out, so-called, and increase in wages, by reason of the fact that these two matters were being considered by boards established under federal jurisdiction, were agreed to be waived, pending such reports. Equal division of work was also accepted as a basis of employment. The representatives of the employees then asked Mr. Lennihan to take down the notices which had previously been posted and which notified employees in substance that while they had a right, they were not compelled to join the union. This he declined to do. The meeting then broke up with the demand for a union shop being revived and without having discussed what presumably would have been a major issue, that of the employees returning to work in their former positions.

Later Anna Weinstock, a federal conciliator, representing the Textile Labor Relations Board, visited Southbridge and conferred with the parties. On being informed by Mr. Lennihan that the Board had the matter in charge, she and her associate, Mr. Robertson, conferred with the Board on December 3. As a result a joint conference was arranged to be held in Southbridge on December 5 between representatives of the employees and of the company, to which she and her associate were invited and attended. At this conference there was only a general, brief discussion of the existing differences, as it was recognized that at the previous conferences an understanding had been reached and the machinery established for taking up any future differences that might arise.

An understanding was also reached as to the other matters in controversy, leaving as the single, outstanding issue remaining, the demand of the committee that the employees return to work in their former positions. Representatives of the company declined again to accede to this, taking the attitude that they would not displace the employees, about one hundred and twenty-five in number, who had been employed since the strike, coming, as they did, from Southbridge and vicinity and some of whom had formerly worked for the company. As this was a crucial issue, the Board, in co-operation with the federal conciliators, discussed with the representative of the company a compromise whereby the company should at once resume its two-shift operation and work in each department at full capacity, taking back all the employees without discrimination in so far as business conditions warranted. If, at the expiration of two weeks, all of the employees had not been taken back the matter was to be submitted to the Board who, through arbitration, would determine what employees, if any, should be taken back and what others, if any, discharged or otherwise displaced. This met with the approval of the com-

pany provided it came as a recommendation of the Board. However, this did not meet with the approval of the employees' committee and as a result the conference ended.

In the meantime Mr. Riviere, the fourth vice-president of the United Textile Workers of America, came to the conference, but after the employers' group had left. This proposed compromise was further discussed by the Board with the committee and Mr. Riviere and as finally left was to be presented at the meeting of the employees that night for action and the Board notified thereof. In the meantime assurance was secured from Mr. Lennihan that no new operatives would be employed the next day and that the company would still be willing to accept this compromise if recommended by the Board, which the Board was prepared to do. Unfortunately the employees at their meeting rejected this basis of adjustment and the Board was so informed the following afternoon.

On December 11, the directors issued a statement announcing the closing of the mill, alleging the cause to be the continued labor controversies. This came to the attention of the Board through the press on the morning of December 12 and immediately the Board assigned a hearing at Southbridge on December 14 as a part of its investigation, to determine which of the parties to this controversy was mainly responsible or blameworthy for the existence or continuance of the same. However, this controversy, as it will appear, having been settled, no report placing such blame was made. At this hearing Mr. Lennihan, in outlining the position of the company, read a statement announcing that by reason of the labor controversies "the company had definitely decided to close the mill permanently." Mr. Sylvia and others, speaking for the striking employees, in turn outlined the claims of discrimination and grievances which they contended were the cause of this strike. Evidence was also offered by the employees on behalf of their fellow employees who remained at work as to the fair and satisfactory conditions of employment and their desire to have the privilege of continuing at work.

Later in the afternoon of December 18, the board of directors issued a further statement, outlining in detail the position of the company as a result of these labor controversies, concluding with the following: "The directors have, therefore, arranged to call a special meeting of the stockholders and have voted to recommend the liquidation of the company."

On December 20, the Board sent the following telegram to Miss Jean Gauthier, President Southbridge Local, U. T. W. of A., at Southbridge:

The Board of Conciliation and Arbitration recommends and urges the immediate calling off of the strike now in progress at Hamilton Woolen Mills. Situation calls for a major and not minor operation. If and when recommendation is accepted the Board will immediately make further recommendations to the company and employees, giving a fair and reasonable basis for adjustment of this controversy which will afford ample protection to the rights and privileges of all parties concerned.

No response being received to this telegram, the Board invited the committee of employees to a conference, held on Monday, January 7, at the State House. There were present Mr. Dickens, Jean Gauthier, Catherine Reilly, Vivian Labonte and Mr. Daoust. At this conference the necessity for immediate and favorable action on the recommendation of the Board was forcibly impressed upon this committee in order that the Board might be in a position to confer immediately with the board of directors and officials of the company and secure, if possible, favorable action towards the reopening of this mill, the necessity for immediate action being that the question of the liquidation of this company was to come before a meeting of the stockholders to be held on January 15. After a general discussion, followed by the committee conferring together, they informed the Board that they were prepared to advise the acceptance of the recommendation of the Board to call off the strike and place the entire matter in the Board's hands for adjustment, stating that a meeting of the union was to be held the next day. It later appeared that the meeting was adjourned without any action being taken to the following day, Wednesday, January 9.

On Thursday, January 10, it appeared in the press that at this meeting the recommendation of the Board had been rejected by a vote of 480 to 2. In so far as

the Board had information, this committee on Wednesday morning was still prepared to advocate acceptance of the recommendation and that the general sentiment among the operatives in Southbridge this morning appeared also to be favorable to such action, but for some reason, concerning which the Board then had no information, the entire attitude suddenly changed, with the result that the recommendation of the Board was apparently rejected. The result of this unfortunate action on the part of these employees cannot be viewed otherwise than as placing a very serious stumbling block in the way of securing the reopening of the mill, showing as it did a disposition on the part of the striking employees unwarrantably to continue this industrial strife. The Board is strongly of the opinion that if its recommendation had been accepted, as approved by the committee on Monday, the efforts to secure the continued operation of this mill would have had reasonable prospects of success.

Relative to the complaints of discrimination, including those presented at the hearing, some of which had been discussed with the representatives of the company and employees, separately and in joint conference, by the terms of the adjustment made under date of September 28, hereinbefore outlined, all such differences which arose and were not amicably adjusted by the parties were, without cessation of work, to be submitted to this Board for determination.

During the strike there was mass picketing and acts of violence also occurred. To what extent this violence has been occasioned by the strikers or their sympathizers or others, the Board is not in a position to state.

Recognizing the unrest which exists by reason of industrial and economic conditions, the Board can well visualize that in communities like the present where labor unions have not previously existed, or at least not to any extent, and where labor controversies resulting in the cessation of work are an unusual occurrence, it is only natural that those entrusted with the operation of the mill should at first not view with sympathy or favor any new organization without outside affiliations, whose activities affect employment; and also, that this attitude may to some extent be reflected by the other employees who are not members of the union.

On the other hand, it may as justly be visualized that the employees, members of the union, which is a new organization to them and accompanied with the right of collective bargaining, in turn may be and unfortunately are unduly enthused and expect too much sympathy, encouragement and support from their organization relative to any complaints, real or assumed, which they may have against those having supervision over their work and even against their fellow employees, not members of the union. This is a formative period calling for the utmost restraint on the part of the employer and employee and it is especially incumbent on the employees, members of the new union, to realize that through word and act they should justify their new relationship and prove its worth not only to themselves, but to the company and their fellow employees. Apparently there has been failure on the part of the supervisory force of the mill and the employees as well, members of the union, to recognize this fact and exercise that degree of patience and tolerance necessary for the maintenance of industrial peace.

The aroused public interest in this labor controversy has been so pronounced; the opportunities offered for adjusting the same so fair and reasonable, even in face of the unjustifiable cessation of work on the part of these employees; the results so disastrous to the community, the company and employees, union and non-union as well, that it affords a more forceful example of the futility of protracted labor strife.

At the meeting of the stockholders on January 15, it was voted to liquidate the company. A few days later President Lennihan announced that in the process of liquidation the company might afford about two months' work, providing the employees would return and work in harmony, and the mill would be reopened on January 28 if such assurance was given. After some consideration and meetings of the employees, members of Local No. 2324, the Board understands the strike was called off and employment resumed on January 28, with the great majority returning to work and more to be employed as the work warranted. Since then the Board is informed that this company has sold its mill and that the same is to continue to be operated by the purchaser.

Wareham and Vicinity.—Early in September a labor controversy, as was the

case the previous year, arose between the cranberry growers in Wareham and vicinity and employees, resulting in disturbances and some violence. The Board visited Wareham on September 10, conferred with several of these growers and discussed the situation in detail. They stated that while some of the employees were being withheld through fear from coming to work, yet they had all the help they needed. It appeared that in normal periods there were about 5,000 employees in this work, the season for which was short for approximately three-fourths of this number. The Board then conferred with the board of selectmen and later with representatives of the striking employees. Among their demands were an increase in wage rates and a correction of working and sanitary conditions, including a union agreement. As a result it was apparent to the Board that while this strike was affecting this industry to a limited extent only, it was occasioning a serious condition of disturbance in this locality. The Board on the following day submitted recommendations for settlement of the controversy, which were accepted by these employees but not by the employers. As a result the Board held a further conference with the representatives of these employees, recommending that the strike be called off and the Board would then make an investigation of this industry relative to wage rates, sanitary conditions, etc. This recommendation was accepted and the controversy ended. The Board then proceeded with its investigation, which is still in progress at the close of the year.

ARBITRATION

While in numbers the joint applications for arbitration have been less than those presented during the previous four years, yet these applications have been more diversified, both as to occupations and issues involved, than those presented for several years. This has been occasioned to some extent by reason of agreements made between the employers and employees in the tanning industry in Peabody and vicinity, also including Woburn and Winchester, under the terms of which the Board has been called upon to arbitrate prices and other issues; also, as a result of settlements made in the textile and other industries where the Board has been called upon through arbitration to fix wage rates which the parties were unable to adjust.

LIST OF INDUSTRIES AFFECTED AND PRINCIPAL DIFFERENCES IN CONCILIATION AND ARBITRATION CASES

CONCILIATION

Industries Affected: Baby Carriage, Baking, Building, Carpet, Chemicals, Coal, Cranberry, Fish, Furniture, Japanning, Meat, Paper, Paper Bag, Pocketbook, Restaurant, Shoe, Tanning, Thread, Textile, Transportation, Window Cleaning.

Principal Differences: Wages, Working Conditions, Discharge, Discrimination.

ARBITRATION

<i>Industries Affected</i>	<i>Issues Arbitrated</i>
Baking	Wages, Conditions
Coal	Wages
Paper	Wages
Shoe	Discharge, Wages
Silk	Wages
Tannery	Discrimination, Discharge, Wages
Textile	Discrimination

REPORT OF THE MINIMUM WAGE COMMISSION

EDWARD FISHER, *Chairman*; JOHN L. CAMPOS; RAYMOND V. McNAMARA;
MARY E. MEEHAN, *Acting Director*

SALIENT FEATURES OF THE NEW MINIMUM WAGE LAW *Chapter 308 of the Acts of 1934*

Under the provisions of this law, which became effective September 12 and which supersedes the existing law except as to the 22 decrees then in effect, material and substantial changes are made in the terms operation, administration and enforcement of this law, greater authority and responsibility being given to the Commissioner of the department with a lessening of the duties and responsibilities of the Minimum Wage Commission. The following is a brief outline of some of the duties of the Commissioner.

1. The Commissioner or his authorized agent is given authority to make an investigation of wages paid to women and minors and examine the records of the employer; or he may require the employer to furnish in writing under oath the desired information relative thereto.

2. On the petition of 50 or more residents, it is the duty of the Commissioner to make an investigation of the wages paid to such employees, and if on information the Commissioner is of the opinion that a substantial number of women or minors in any occupation are receiving what is termed "oppressive and unreasonable wages," he may direct the Minimum Wage Commission to appoint a wage board.

3. After the Commission in the performance of its duties has formed a wage board and approved its report and transmitted the same to the Commissioner, he in turn makes what is known as a "directory order," making such rates minimum fair wage rates in this occupation, including administrative regulations submitted therewith by the Commission.

NOTE. It will be here noted that the word "decree" is no longer used in the law, the Commissioner issuing what is known as a "directory order" establishing fair minimum wage rates.

4. Later, if the Commissioner has reason to believe that any employer in this occupation is not complying with the order, he may summons such employer to appear and show cause why he should not be published for such failure, and if found not to be complying, may cause publication to be made.

5. After a directory order has been in effect for at least 9 months, the Commissioner may, if in his opinion "the persistent non-observance of such order by one or more employers is a threat to the maintenance of fair minimum wage standards in any occupation," after notice and a public hearing, make such order mandatory and failure thereafter to comply with the order subjects the employer to punishment by fine or imprisonment or both.

6. The Commissioner, after a minimum fair wage order, whether directory or mandatory, has been in effect for a year or more, may, and on petition of 50 or more residents, shall direct the Commission to reconsider the minimum fair wage rates either through reconvening the former or appointing a new wage board.

7. The Commissioner is also authorized at any time to propose to the Commission changes in administrative regulation.

The following is a brief outline of some of the duties and functions of the Commission.

1. If so directed by the Commissioner, a wage board is appointed by the Commission in an occupation and upon receipt of the report of this board, if not satisfactory, it may be recommended to the same board or a new board established. If accepted, it is published and a public hearing held. After the hearing the Commission may again recommend it to the board or establish a new wage board; but if it approves the report, submits it to the Commissioner.

2. The Commission has the additional duty and authority to accompany such report with administrative regulations. This is a new provision.

3. The Commission still retains its authority to issue special licenses to employees whose earning capacity is impaired by age, physical or mental deficiency, or injury.

4. After a directory order has been in effect for one year, on direction of the Commissioner, the Commission is required to reconvene or establish a new wage board in order to review the existing wages.

5. On recommendation of the Commissioner, the Commission is also authorized to revise the administrative regulations of any order.

While no attempt is being made to make even a general outline of the law, it is to be noted that provision is made therein for an appeal to the courts from any order of the Commissioner; also a requirement that the employer keep a record of employees, hours worked and wages paid; and penalties are provided for violation of the provisions of the act.

Status of Existing Decrees — 22 in Number:

While the new law made provision under section 3 for retaining the existing decrees, yet it seemed apparent that this provision was not sufficiently comprehensive to bring these decrees under the provisions of the new law with special reference to enforcement. For that reason the opinion of the Attorney General was sought and under date of August 27 he advised the department (1) that the existing decrees are to be enforced by the Minimum Wage Commission under provision of the former law and not by the Commissioner under provision of the new law and (2) that the existing decrees cannot be mandatory as provided under the new law.

This created in the opinion of the Commission an anomalous situation, as the existing decrees, 22 in number, under this opinion can only be enforced by the Minimum Wage Commission, under the provisions of the former law, while any new fair minimum wage rate hereafter established would be enforced by the Commissioner under provisions in the new law with its mandatory provision.

In order to correct this situation, the department has recommended to the incoming legislature that this situation be remedied through legislation whereby these decrees may be brought under the mandatory and other provisions of the new law.

OUTLINE OF ACTIVITIES

During the year the Commission, in addition to its regular inspection work, has continued with its activities in co-operation with the code and other federal agencies in securing data and making investigations relative to wage rates, hours and other conditions of employment.

While at the close of the year the records of the Commission again show a large number of non-compliance cases, this is not, at present at least, to be viewed in any serious light, as the rates paid in most instances represent compliance with the wage rates of the codes, these rates, generally speaking, being lower than those established under the decrees. The most noticeable instance, and one concerning which further reference is hereinafter made, is that of the Retail Store decree, where are the greater number of non-compliances.

The advent of the N. I. R. A. and accompanying codes has not only resulted in raising in many instances the wage rates and bringing them more nearly in conformity with the provisions of the decrees, but has also resulted in securing more uniformity of wage rates in the various occupations, thereby removing one of the causes of unfair competition on the part of those employers who in the past have persistently failed to meet the wage rates established under the decrees.

RELATION OF CODES TO DECREES

Section 3 of chapter 308 of the Acts of 1934 grants authority to the Commission "to suspend, alter or modify the provisions of any minimum wage decree in force upon such effective date so as to bring the wage and other provisions of such decree into complete or partial conformity with similar provisions in any code or codes applicable to the industry covered by said decree and approved by the President of the United States under the provisions of the National Industrial Recovery Act, such authority to be effective only during such time as the code or codes in question

respectively remain in effect." In endeavoring to exercise this authority some unforeseen and unusual difficulties and obstacles have been encountered, which have thus far made unnecessary or at least rendered inadvisable any immediate action thereunder, as indicated by the following outline.

In the case of one decree, Laundry, there is no code in effect in the occupation.

While in the case of each of two other decrees, Bread and Bakery and Boot and Shoe Cut Stock and Findings, the occupation is divided among several codes, yet in each instance one branch of the occupation is not included in any code.

In the case of the Office and Other Building Cleaners decree, where there are two codes, only a portion of this occupation is covered.

In the case of two decrees, Corset and Brush, there is in each instance a single code in the occupation.

Relative to the remaining 16 decrees, while there are codes for each of the occupations, in every instance the work under the occupations is divided among two or more codes, and in one instance among ten, and another among thirteen codes.

In the case of the two decrees, Corset and Brush, the code rates in each instance are higher than the minimum established thereunder.

As to the other decrees and codes applicable thereto, with their varying rates and provisions relative to apprenticeship, etc., no definite outline or comparison is attempted to be made.

It will be readily seen from this brief outline the difficult problems presented to the Commission in attempting to act under the provisions of this section. In the case of two decrees, Corset and Brush, where the code rates are higher than those established under the decrees, no action seemed necessary. As to the other decrees, the impracticability, not to say impossibility, in most instances of altering or modifying a decree to comply with the several codes, with their varying rates, etc., can readily be appreciated. Further, the Commission has not deemed it advisable to suspend a decree, as to do so would accomplish no constructive purpose.

Under these circumstances, the Commission has therefore deemed it advisable to continue with its work of investigation and efforts to secure compliance; and also, in co-operation with the code authorities, has reported to them any failure, found in the course of investigation, on the part of such employers to comply with codes.

Thus far, where compliance has been found with the code, although not with the decree, the Commission has continued with its efforts to secure compliance, and, to some extent, has been successful; and has not resorted to publication, as such a course would seem at this time inadvisable where there is compliance with the code.

RETAIL STORE DECREE

Relative to the issue of the conflict of laws referred to in the last annual report, and more particularly in respect to the Retail Trade code, which includes the occupation of retail stores under the minimum wage decree, it was then pointed out that under one of the sections of this code, as is the case under many other codes, it is prescribed that where the state law establishes a higher minimum than that established under the code, the state law is to prevail. This became particularly important under the Retail Store decree, as under the code the rates are based on population, and in all the communities outside of Boston the code rates are less, and in some cases considerably less, than the decree, except where in some instances the hours are in excess of forty per week.

It was further stated in the last report that the Board had been informed that it was the attitude of the federal authorities entrusted with the enforcement of the codes that by reason of this section in the code the provisions of the Massachusetts decree should prevail where higher than the code rates. Nevertheless, it appeared that some of the chain stores were contending that our minimum wage law, being recommendatory and not mandatory, did not bring this decree within the provision of this section, it not being, as was contended, a law in the sense that it was obligatory. Since then, the code authorities at Washington have made an official ruling supporting the contentions of these stores that this section did not apply, as the Massachusetts law was not mandatory.

Nevertheless, the Commission is continuing with its efforts to secure compliance in so far as it is able to do so, but again points out the advisability of amending

the law to bring the existing decrees under the provisions of the new law with its mandatory provision.

NEW WAGE BOARD

For some time there have been complaints made of the low wage rates in the dry cleaning establishments.

This was serious not only to the employees who were receiving in many instances very low wage rates, but was also a menace to the legitimate employer engaged in this occupation, and also to those employers coming under the provisions of the Laundry decree, part of whose business was also that of dry cleaning, resulting in very unfair competition.

For these reasons, the Commission decided that it was advisable to form a new wage board for the Laundry decree, enlarging the scope to include the dry cleaning occupation.

No steps were taken toward this end in the early part of the year, by reason of the fact that the new law did not become effective until September 12.

As a result, after that date, and after further examination, and upon recommendation made to the Commissioner of the department, the Commissioner on November 1 directed the Commission to establish a wage board for this occupation.

The board is in process of being formed at the close of the year.

ADVERTISEMENT OF NON-COMPLIANCES

(See Table 1)

There being no code in effect in the Laundry occupation, and the Commission being unable to secure full compliance with the Laundry decree, publication was made on September 5 in the case of eight firms. This was the only publication during the year.

INSPECTIONS

During the year, the Commission has completed the inspection initiated in 1933 under the jewelry decree. Inspection has also been initiated and completed under the following decrees: boot and shoe cut stock and findings; bread and bakery products; brush; candy; canning and preserving and minor lines of confectionery; corset; druggists' compounds and proprietary medicines; electrical equipment and supplies; jewelry; knit goods; laundry; men's clothing and raincoat; men's furnishings; millinery; muslin underwear; office and other building cleaners; paper box; pocketbook and leather goods; retail stores; stationery goods and envelopes; toys, games and sporting goods; and women's clothing.

In addition, as usual, there have been inspections and reinspections under most of the decrees; in some cases as a result of complaints, and in others as a check-up on the part of the Commission to see if assurance given by employers to meet compliance had been fulfilled. There was also a check-up preliminary to publication under the Laundry decree.

In the regular inspection work, wage records for tabulation were secured for 53,907 women and girls in 2,291 firms. In addition, 6,464 reinspection records were taken under 20 decrees including 225 establishments, thus making a grand total of 60,371 cases in 2,516 firms.

REINSPECTION OF INSPECTION CASES

Disposition of Non-Compliances Pending from Previous Years

(See Table 2)

At the beginning of the fiscal year there were outstanding, as appears from the report of the previous year, 9,014 cases of non-compliance in 494 establishments. A large number of these cases come under the muslin underwear decree with 1,365 cases in 45 establishments, and men's furnishings decree with 1,212 cases in 41 establishments.

There were also 957 cases in 20 electrical equipment firms; 749 cases in 23 stationery goods establishments; 681 cases in 26 pocketbook and leather goods establishments; 610 cases in 58 retail stores; 739 cases in 24 jewelry establishments; and 453 cases in 59 boot and shoe cut stock and findings factories. The remaining cases were divided among the following decrees: bread and bakery; brush; candy; canning and preserving and minor lines of confectionery; corset; druggists' com-

pounds and proprietary medicines; knit goods; laundries; men's clothing and rain coat; millinery; office and other building cleaners; paper box; toys, games and sporting goods; and women's clothing.

Adjustments. — As a large number of these cases were in establishments where difficulties in securing adjustment had prevailed in the past, a difficult problem was presented in securing compliance. However, the Commission has been reasonably successful in securing adjustments, and in many cases where compliance was not secured, substantial increases in wage rates were made. Wages were raised to meet the provisions of the decrees in 2,033 cases in 178 establishments. Adjustments by change of work, hours or method of payment, whereby the employees were enabled to earn the minimum, were made in 708 cases in 67 establishments. There were 202 employees in 8 establishments covered by the piece-rate ruling and in 2,489 cases in 209 establishments it was reported that the employees had left, been laid off or discharged. Twenty-three establishments with 289 cases were reported as out of business, and 2 cases in 2 establishments were incorrectly recorded, while 85 cases in 5 establishments were not under the decree. Adjustment was promised or reported in 317 cases in 47 establishments. Three establishments employing 191 women moved from the state; 4 cases in 1 establishment were recorded as special license types; and 21 cases of technical non-compliance were found in 7 establishments.

Advertisement. — The only firms advertised were those coming under the laundry decree, including 89 cases in 7 establishments.

Cases Pending. — There were outstanding at the close of the year, 2,584 cases in 174 establishments, mainly under the men's furnishings, muslin underwear, jewelry and related lines, and retail store decrees.

**DISPOSITION OF NEW CASES FOUND IN FIRMS WITH CASES OUTSTANDING
FROM PREVIOUS YEARS**

(See Table 3)

In the course of reinspection of firms with cases outstanding from previous years, 2,093 new cases were found in 125 establishments. The majority of these cases came under the electrical equipment, men's furnishings, and muslin underwear decrees. The remaining cases were under the boot and shoe; bread and bakery; canning and preserving; druggists' compounds; jewelry and related lines; knit goods; laundry; men's clothing and rain coat; paper box; pocketbook and leather goods; retail stores; toys, games and sporting goods; and stationery goods and envelopes decrees.

Adjustments. — As many of these cases were in establishments where compliance had never been secured, the Commission faced difficulties in endeavoring to secure adjustments. In 46 cases in 9 establishments wages were raised to meet the provisions of the decrees. Adjustment was promised or reported in 9 establishments employing 32 women, while 58 employees in 8 establishments were covered by piece-rate ruling; 20 employees in 2 establishments were transferred from time to piece work in order to conform with the decree; and 222 employees in 5 firms were reported as left, laid off or discharged. One employee in 1 establishment came under the special license provision.

Advertisement. — Seventeen cases in one laundry were advertised in 1934.

Cases Pending. — There were pending at the close of the year 1,697 cases in 104 establishments, mainly under the electrical equipment, muslin underwear, boot and shoe cut stock and findings, and men's furnishings decrees. Other cases were found under the bread and bakery; jewelry and related lines; knit goods; men's clothing and rain coat; paper box; pocketbook and leather goods; retail store; stationery goods and envelopes; and toys, games and sporting goods decrees.

DISPOSITION OF CASES IN THE REGULAR INSPECTION WORK

(See Table 4)

In the regular inspection work, 5,777 cases of non-compliance were found in 460 establishments. This represents a decided improvement over that of the past year both as to numbers of establishments and cases, and it is to be further noted that in most instances it represents compliance with the code rates.

Adjustments. — In the cases settled, wages were raised for 375 women in 46 establishments. Adjustments by change of work, hours or method of payment whereby the employees were enabled to earn the minimum were made in 43 cases in 15 establishments. Adjustment was promised or reported in 265 additional cases in 56 establishments. There were 350 employees in 52 establishments who came under the piece-rate ruling. This ruling provides that in cases of experienced operators where the great majority are earning the minimum or over, the rates are considered to be in accordance with the decree. In 6 establishments, 7 employees were covered by the special license provision; in 232 cases in 23 establishments it was reported that the employees had left, were laid off, or were discharged. One establishment employing 1 woman was reported as out of business. There was also 1 case in 1 establishment that did not come under the decrees; 15 cases in 2 establishments were incorrectly recorded; 10 cases in 4 establishments were considered as technical non-compliance; and 1 establishment employing 3 women moved from the state.

Advertisements. — There were 4 establishments with 28 cases of non-compliance that were advertised during the year. These were under the laundry decree.

Cases Pending. — At the close of the year there were pending in the regular inspection work 4,447 cases in 249 establishments.

CONCLUSION

The enactment of what is commonly termed the Uniform Minimum Wage law, to which reference is made early in this report, presents, as already stated, many changes in the structure, procedure and enforcement of the law, the word decree being eliminated and substitution therefor is the directory order of the Commissioner. Further, the approach under this law in establishing rates is somewhat different than that of the former law, the act providing, in section 1, for "A fair wage," a wage fairly and reasonably commensurate with the value of the service or class of service rendered"; and further providing in section 2 as follows: "It is hereby declared to be against public policy for any employer to employ any woman or minor in an occupation in this commonwealth at an oppressive and unreasonable wage as defined in section one and any contract, agreement or understanding for or in relation to such employment shall be null and void"; and making the following definition in section 1: "An oppressive and unreasonable wage," a wage which is both less than the fair and reasonable value of the services rendered and less than sufficient to meet the minimum cost of living necessary for health." It will be further noted that before a mandatory order can be issued, a period of at least 9 months must elapse, during which there is an opportunity for publication of those employers who fail to comply; and the mandatory order can only be issued after a hearing and a determination by the Commissioner that the persistent non-observance of such order by one or more employers is a threat to the maintenance of the fair minimum wage standards.

This approach seems to provide fair and ample protection and safeguards to the rights of those employers who are willing and desirous to carry out the provisions of the law, and affords full opportunity for adjustment to meet its requirements by other employers. Nevertheless, of course, the question of its constitutionality, even under this form, is open for presentation to the courts. What action the courts may take thereon cannot be forecast; but even if this mandatory provision is declared unconstitutional, the other provisions will still remain intact.

This approach would seem to warrant the hope and belief that this mandatory provision meets with all constitutional requirements.

Table 1. — *Advertisement of Non-Compliances under Minimum Wage Decrees, 1934*
LAUNDRY INDUSTRY

Date of advertisement	.	.	.	.	.	.	September 5, 1934
Number of establishments at most recent inspection	.	.	.	.	.	.	347
Number of records in most recent inspection	.	.	.	.	.	.	5,677
Cases of non-compliances:—							
Firms	.	.	.	.	.	.	8
Cases	.	.	.	.	.	.	134
Per cent of non-compliances:—							
Firms	.	.	.	.	.	.	2.3
Cases	.	.	.	.	.	.	2.4

Table 2.—Disposition of Cases of Non-compliance Pending from Previous Years
(C—Cases; E—Establishments)

SITUATION AND DISPOSITION OF CASES	C.						C.						C.						C.					
	Boot and Shoe Cut Stock and Findings	Bread and Bakery Products	Brush	Candy	Canning, Preserv- ing and Minor Lines	Corset	Druggists' Compounds and Pro- perty Medicines	Electrical Equip- ment and Supplies	Jewelry and Related Lines	Knit Goods	Laundry	Men's Clothing and Raincoats	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.		
Cases pending from previous years	453	59	106	8	75	2	14	5	171	17	32	2	105	4	937	20	739	24	373	13	193	34	328	25
ADJUSTMENTS																								
Wages raised	114	18	41	6	55	2	6	3	41	7	1	1	8	2	172	7	221	5	248	7	51	16	36	9
Left, laid off or discharged	99	25	30	1	20	1	1	1	23	6	20	1	53	4	374	13	62	12	11	4	16	7	100	12
Firm out of business	7	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Technical non-compliance	—	—	10	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Change of work, hours or method of payment	21	3	—	—	—	—	—	—	5	3	8	1	—	—	116	5	42	7	—	—	1	1	55	9
Incorrectly recorded	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	31	2	14	1	72	2	—	—	—
Covered by piece rate ruling	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not under decree	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Special license type	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Adjustment promised or reported	4	1	—	—	—	—	—	—	—	—	102	5	—	—	34	1	—	—	—	—	6	1	20	6
Firm moved from State	—	—	—	—	—	—	—	—	5	1	—	—	—	—	—	10	1	264	10	400	15	32	2	—
ADVERTISED PENDING	205	35	25	2	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	—	89	7	—
																						21	5	

Table 2.—Disposition of Cases of Non-compliance Pending from Previous Years—Concluded
(C—Cases; E—Establishments)

Table 3.—Disposition of New Cases in Firms where Cases were Pending from Previous Years

(C — Cases; E — Establishments)

SITUATION AND DISPOSITION OF CASES	Boot and Shoe Cut Stock and Findings	Bread and Bakery Products	Canning, Preserving and Minor Lines of Confectionery	Drugists' Compounds and Proprietary Medicines	Electrical Equipment and Supplies	Jewelry and Related Lines	Knit Goods	Laundry
	C.	E.	C.	C.	C.	C.	C.	C.
Number of Cases of Non-compliance	295	25	54	1	9	3	1	20
ADJUSTMENTS								3
Wages raised	1	1	1	1	1	1	1	1
Left, laid off or discharged	15	—	—	—	—	—	—	—
Change in method of payment	—	—	—	—	—	—	—	—
Special license type	—	—	—	—	—	—	—	—
Adjustment promised or reported	—	—	—	—	—	—	—	—
Covered by piece rate ruling	2	1	—	—	—	—	2	1
ADVERTISED	—	—	54	1	—	—	—	—
PENDING	277	25	—	—	—	—	17	1

SITUATION AND DISPOSITION OF CASES	Men's Clothing and Raincoats	Men's Furnish- ings	Muslin Underwear	Paper Box	Pocketbook and Leather Goods	Retail Stores	Stationery Goods and Envelopes	Toys, Games and Sporting Goods	Total
	C.	E.	C.	C.	C.	C.	C.	C.	C.
Number of Cases of Non-compliance	18	6	305	9	341	18	13	5	2,093
ADJUSTMENTS									125
Wages raised	6	2	33	—	—	2	—	—	9
Left, laid off or discharged	—	—	18	1	1	1	—	—	5
Change in method of payment	—	—	—	—	—	—	—	—	2
Special license type	—	—	—	—	—	—	—	—	1
Adjustment promised or reported	—	—	15	2	15	3	—	—	32
Covered by piece rate ruling	—	—	15	2	15	3	—	—	8
ADVERTISED	—	—	239	9	325	17	5	2	17
PENDING	12	4	—	—	—	—	65	8	1,697

Table 4.—Summary of Adjustments in Connection with Inspection in 1934 under the Minimum Wage Decrees
(C—Cases; E—Establishments)

Table 4.—Summary of Adjustments in Connection with Inspection in 1934 under the Minimum Wage Decrees—Concluded

(C—Cases; E—Establishments)

SITUATION AND DISPOSITION OF CASES	Men's Clothing and Raincoats	Men's Furnish- ings	Muslin Under- wear	Office and Other Building Cleaners		Paper Box		Pocket- book and Leather Goods		Retail Stores ¹		Stationery Goods and Envelopes		Toys, Games and Sporting Goods		Women's Clothing		Total			
				C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.	C.	E.				
Records for tabulation and establishments represented	2,415	82	4,424	98	4,187	80	1,981	336	2,634	114	1,508	45	7,277	314	3,296	69	417	12	53,907*	2,291*	
Cases of non-compliance	256	26	333	36	431	20	1,93	24	55	26	4	3	2,976	167	3	108	2	1,800	119	5,777	460
ADJUSTMENTS																					
Wages raised	18	3	27	5	86	4	28	9	2	1	—	—	—	—	—	—	—	—	—	375	
Change of work, hours or method of payment	1	1	26	7	6	1	3	1	—	—	1	1	—	—	—	—	—	—	—	43	
Adjustment promised or reported	1	1	19	9	37	—	33	7	16	5	—	—	1	1	—	—	—	—	—	15	
Covered by piece rate ruling	121	11	103	15	—	—	—	—	11	6	—	—	—	—	—	—	—	—	—	56	
Special license type	1	1	14	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	52	
Incorrectly recorded	1	1	65	9	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	6	
Left, laid off or discharged	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
Firm out of business	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23	
Not under decree	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Technical non-compliance	2	2	—	—	—	—	—	—	7	1	—	—	—	—	—	—	—	—	—	10	
Under new management	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	
Firm moved from State	—	—	—	—	—	—	—	—	3	1	—	—	—	—	—	—	—	—	—	1	
ADVERTISED	—	—	110	10	79	13	292	13	27	5	26	4	2	1	2,975	167	3	108	2	28	
PENDING	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,447	

¹ Partial inspection; chain stores only.

* Includes 1,245 women employed in 39 millinery establishments where complete compliance was found.

MISS MARY E. MEEHAN
Acting Commissioner
Department of Labor and Industries

Dear Madam:

You request my opinion as to whether, after the effective date of chapter 308, of Acts, 1934, the Commissioner of Labor and Industries will have power to enforce as a "directory order" or "mandatory order" under said chapter a decree previously made by the Minimum Wage Commission under G. L., c. 151, and/or whether the Minimum Wage Commission will continue to have the same power which it now has to enforce such a decree.

G. L., c. 151, as it now exists, provides that the Board of Conciliation and Arbitration (the Associate Commissioners of the Department of Labor and Industries, G. L., c. 23, s. 7) in performing the duties required by said chapter shall be known as the Minimum Wage Commission (section 1); that upon final approval by the Commission, after public hearing, of the determination of a minimum wage for female employees in a given occupation by a Minimum Wage Board (as constituted under said chapter) the Commission shall enter a "decree" of its findings, and that the Commission may thereafter publish the names of employers whom it finds to be refusing to follow its recommendations (sections 4, 11).

Section 1 of chapter 308, Acts, 1934, provides:

"The General Laws are hereby amended by striking out chapter one hundred and fifty-one, as amended, and inserting in place thereof the following new chapter:—"

Under this new act, if the "Commission," defined as the associate commissioners of the Department of Labor and Industries, accepts a report of a Wage Board (constituted as provided in section 4) upon the establishment of minimum fair wage rates for women and minors in an occupation, and after public hearing approves it, the Commission shall transmit the report to the Commissioner of Labor and Industries, who shall make a "directory order" which shall define the minimum wage (section 10). If the Commissioner believes that any employer is not observing "the provisions of any order made by the Commissioner under section 10," — that is a "directory order," — he may summon such employer to show cause why his name should not be published as having failed to observe the provisions of such order, and after hearing the "Commissioner" may publish the name of such employer (section 12). After a directory order has been in effect nine months, the Commissioner may, if he finds persistent violation after hearing, make such order "mandatory" (section 13). Any employer paying less than the minimum wage under a "mandatory order" shall be punished by fine or imprisonment (section 22).

Section 3 of said chapter 308 reads in part as follows:

"This act shall not be construed to abrogate or invalidate any proceedings hitherto taken or pending on its effective date under chapter one hundred and fifty-one of the General Laws, as in effect immediately prior to such date, or to alter or modify the effect of any decree or order made under the provisions of said chapter as so in effect, but all such proceedings may be completed in accordance with said chapter, and such decrees and orders shall continue to be in full force and effect until expressly amended, modified or revoked in accordance with chapter one hundred and fifty-one as revised by this act;"

In answer to your questions it is my opinion that

1. The Commissioner has no power under section 12 of chapter 308 to enforce a "decree" of the Minimum Wage Commission because that section expressly confines his power of enforcement to "any order made by the Commissioner under section 10," and the decrees of the Minimum Wage Commission are not made under section 10.

2. Nor has the Commissioner power under section 13 to make a "decree" of the Minimum Wage Commission "mandatory." The power under section 13 to make an order mandatory applies by the express terms of section 13 only to directory orders, and directory orders are defined (section 1) as orders the non-

observance of which may be published "as provided in section 12," which as before stated applies only to orders made "by the Commissioner under section 10."

3. The Minimum Wage Commission will continue to have the same power to enforce decrees heretofore made that it formerly had, until directory orders affecting the same subject matter have been made by the Commissioner after a report by a wage board appointed under chapter 308. Section 3 of chapter 308 incorporates by reference and so perpetuates as to existing decrees the provisions of the existing chapter 151 of the General Laws. It expressly permits the completion of pending proceedings "in accordance with said chapter," that is chapter 151 before the revision; also by providing in the same connection that the decrees made under said chapter shall continue in full force and effect until amended, modified or revoked under chapter 308, the statute discloses a clear intent that the Minimum Wage Commission shall continue to have the same power that it now has to enforce such decrees.

Yours truly,

(Signed) JOSEPH E. WARNER,

Attorney General

August 27, 1934.

REPORT OF THE DIVISION OF STATISTICS

Roswell F. Phelps, *Director*

INTRODUCTION

This report is the fifteenth annual report of the Division of Statistics and covers the work of the Division during the year 1934. The principal branches of the work of the Division of Statistics are the collection and publication of statistics of labor and manufactures and the answering of inquiries relative to the industries of the Commonwealth, the rates of wages, hours of labor, and the conditions of employment. These several branches of the work of the Division during the year 1934 are discussed in this report.

The statistical data herein presented relate for the most part to the calendar year 1934, but summary data for certain prior years are also included for purposes of comparison, and charts showing, graphically, the trends of employment and earnings of wage-earners in the principal industries and municipalities in the Commonwealth appear in the appendix to this report. As there is no separate printed bulletin of this Division in which these tables and charts have been published, they have been included in this report for purposes of permanent record.

In addition to its regular work the Division has co-operated during the past year in two important government projects mentioned below and more fully discussed later in this report¹ under the following captions: "Extension of Monthly Surveys" and "Census of Unemployment in Massachusetts."

For a period of about three months, ending in March, 1934, the Director of the Division was assigned to service in Washington as General Supervisor of a Federal C. W. A. project, which provided for the further extension, principally in the non-manufacturing field, of the monthly employment and payroll surveys by the U. S. Bureau of Labor Statistics throughout the United States. This project was undertaken, for the most part, in co-operation with the labor departments in the several states. As one of the agencies co-operating in this project, this Division was enabled to extend the scope of its monthly surveys relative to employment and earnings of wage-earners by the addition of large numbers of reporting concerns in several important fields of employment.

The census of unemployment in Massachusetts, which was taken as of January 2, 1934, was provided for by federal funds granted under C. W. A. and F. E. R. A. projects and was under the general supervision of this department, but beginning September 1, the editing of the report was assigned to the Director of this Division and the work was done as a special F. E. R. A. project by an editorial staff under his immediate direction.

During the past year, this Division has been called upon to furnish much information for the use of various agencies and individuals engaged in government and other projects and to answer numerous inquiries with reference to industrial changes which have occurred during recent years. In some cases, special investigations were undertaken in order to answer such inquiries and to secure additional information supplementing the official records already available in the files.

INDUSTRIAL CHANGES IN MASSACHUSETTS, 1925 TO 1934

In discussing the industrial changes which have occurred in Massachusetts during the past ten years, reference is made in this section of this report to the manufacturing industries only. In Table 1 data are presented for the years 1925 to 1934, inclusive, showing the average number of wage-earners employed in the manufacturing industries in the Commonwealth, the average annual earnings of those employed, the real value of their annual earnings, and the relative cost of living in Massachusetts, based on wage-earners' budgets. Corresponding index numbers for each of these items are also presented. These index numbers have been computed, using as a base (100) the averages of the respective items for the three years, 1925 to 1927. The trends are shown, graphically, on the accompanying chart.

¹ See pages 60 and 89.

Table 1.—*Industrial Trends in Massachusetts, 1925-1934*
(Base—Average for three years, 1925-1927 = 100)

YEARS	INDEX NUMBERS ²							
	Average Number of Wage-Earners Employed ¹	Amount Paid in Wages During the Year ¹	Average Annual Earnings of Wage-Earners ¹	Average Number of Wage-Earners Employed ¹	Amount Paid in Wages during the Year ¹	Average Annual Earnings of Wage-Earners ¹	Cost of Living ³	Real Value of Average Annual Earnings
Base	590,616	\$720,097,884	\$1,219.23	100.0	100.0	100.0	100.0	100.0
1925	591,438	716,155,593	1,210.87	100.1	99.5	99.3	100.9	98.4
1926	602,343	738,208,510	1,225.56	102.0	102.5	100.5	100.7	99.8
1927	578,068	705,929,549	1,221.19	97.9	98.0	100.2	98.3	101.7
1928	540,927	670,063,291	1,238.73	91.6	93.1	101.6	98.6	102.9
1929	557,494	694,805,312	1,246.30	94.4	96.5	102.2	99.2	103.0
1930	481,449	573,838,044	1,191.90	81.5	79.7	97.8	95.7	102.1
1931	434,441	474,189,202	1,091.49	73.6	65.9	89.5	87.3	102.5
1932	350,521	334,358,550	953.89	59.3	46.4	78.2	78.8	103.6
1933 ⁴	398,592	354,523,624	889.44	67.5	49.2	73.0	76.3	95.5
1934 ⁵	421,300 ⁶	404,866,000 ⁵	960.97 ⁵	71.3 ⁵	56.2 ⁵	78.8 ⁵	81.8	96.3

¹ Compiled from reports of the Annual Census of Manufacturers in Massachusetts for the years 1925 to 1932, taken by the Division of Statistics.

² In computing the index numbers the average for the three years, 1925, 1926, and 1927, was taken as the base (100) in each case.

³ Compiled from reports of the Division on the Necessaries of Life.

⁴ Since the publication of the report for 1933 the results of the annual census of manufactures in Massachusetts for the year 1933 have become available and are here substituted for the estimates published in that report.

⁵ Estimates based on results of "Monthly Surveys of Employment and Earnings in Representative Manufacturing Establishments," by the Division of Statistics.

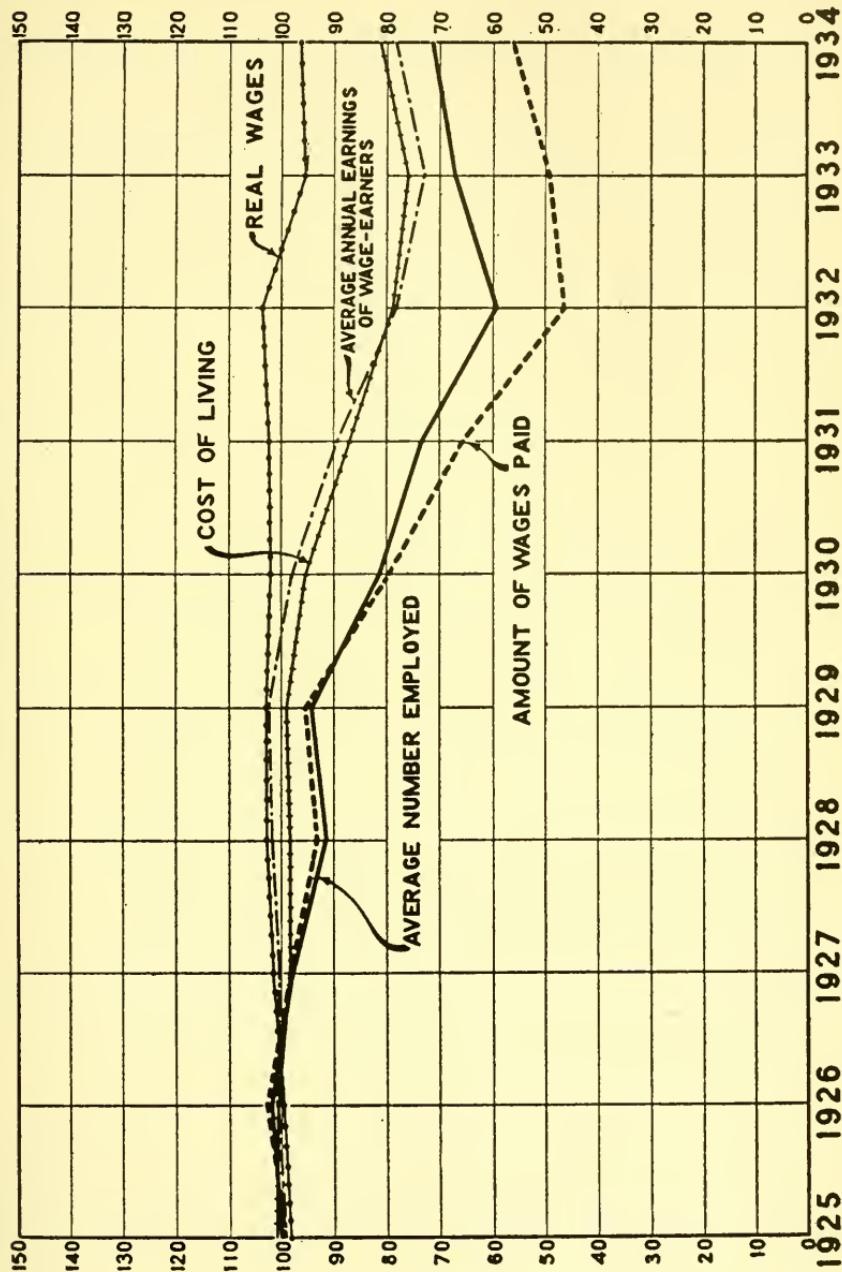
Employment.—On reference to Table 1 and the chart, it will be observed that in 1926 the index number representing employment of wage-earners in the manufacturing industries in Massachusetts was 102, exceeding the corresponding index numbers for all other years during the decade. With the exception of the year 1929, when there was some increase in employment over 1928, there was a continuous decrease from year to year in the number of wage-earners employed until 1932, when the index number reached the lowest point (59.3), representing a reduction of 240,095, or 40.7 per cent, in the number employed in 1932 as compared with the average number (590,616) employed during the three-year base period, 1925 to 1927. In 1933, the index number representing employment increased to 67.5 and in 1934 there was a further increase to 71.3. While these increases were relatively small, they were very encouraging because they indicated an upward trend which was in marked contrast with the continuous downward trend during the three years, 1930, 1931 and 1932.

The present industrial depression, the beginning of which was marked by a general decline in industrial activity toward the close of the year 1929, not only in Massachusetts but also throughout the United States, gained in intensity until the lowest point was reached in July, 1932. The year 1933 was the first year since the beginning of the depression in 1929 in which the trend line representing employment of wage-earners in all manufacturing industries, combined, in the State showed a definite movement upward instead of downward. Notwithstanding the increases in 1933 and 1934 the index number (71.3) for 1934 was still 28.7 per cent below the average (100) for the three-year base period, 1925 to 1927.

The Wage Fund.—The amount paid in wages to those employed in the manufacturing industries in Massachusetts decreased during each of the four years 1927 to 1930 in about the same proportion as the number of wage-earners employed, but as the depression became more pronounced in 1931 and 1932, many of those employed suffered reductions in earnings, due to part-time employment and decreases in the rates of wages paid, which resulted in proportionately larger reductions in the total amount of wages paid than in the number of wage-earners employed. This is graphically illustrated by the relative trends of two of the lines on the accompanying chart. It will be observed that during the years 1931 and 1932 the line representing the amount of wages paid had a steeper downward trend than did the line representing the number of wage-earners employed. In 1932 the index number representing the amount paid in wages fell to the lowest point (46.4), as compared with 59.3, representing the number of wage-earners employed. The index number representing the amount paid in wages increased to 49.2 in

TREND OF EMPLOYMENT, OF EARNINGS, AND OF REAL WAGES
IN MANUFACTURING INDUSTRIES, AND OF COST OF
LIVING IN MASSACHUSETTS, BY YEARS 1925-1934

(Base — Average for Three Years 1925, 1926 and 1927 = 100)



1933 and to 56.2 in 1934, but was still well below the corresponding index numbers (67.5 and 71.3, respectively), representing the numbers of wage-earners employed.

Annual Earnings.—The average annual earnings of those employed did not show any marked reduction until 1931, when the index number fell to 89.5, followed by further reductions to 78.2 in 1932 and 73.0 (the lowest point) in 1933, and an increase to 78.8 in 1934.

Real Wages.—The *real* value of the average annual earnings of those employed in any year has been computed by dividing the index number representing the average annual earnings of those employed by the index number representing the cost of living in that year. During the years 1927 to 1932 the real value of the average annual earnings of those employed was somewhat greater than the base (100). In 1933 the index number fell to 95.5 (the lowest point), followed by an increase to 96.3 in 1934.

Cost of Living.—No marked decreases in the cost of living occurred until 1930 when the index number fell to 95.7, followed by further decreases to 87.3 in 1931, 78.8 in 1932, and 76.3 in 1933, and an increase to 81.8 in 1934. In computing the index numbers representing the cost of living (presented in Table 1), the three years, 1925 to 1927, have been taken as the base period, whereas the Division on the Necessaries of Life, in computing the original series, has taken 1913 as the base year.

In the foregoing paragraphs reference has been made to employment and earnings of wage-earners in the *manufacturing* industries as one general group. Later in this report consideration in some detail will be given to changes which have occurred in the principal manufacturing industries, separately, and in other important fields of employment. While it is true that there were marked reductions in employment and earnings of wage-earners in nearly all lines of business during the four years ending in 1932, and that there were increases in some lines in 1933 and 1934, all have not been affected to the same extent. No composite picture, therefore, can truly represent the variety of industrial changes which have occurred during recent years.

STATISTICS OF LABOR

LABOR BULLETINS

Labor Bulletin No. 169. Annual Directory of Labor Organizations in Massachusetts, 1934.—This directory contains, as in previous editions, the name, location, time, and place of meeting and the name and address of the secretary and business agent of each labor organization having its headquarters in Massachusetts, together with a list of all the national and international labor organizations having one or more affiliated local unions in the United States, and the names and addresses of their respective secretaries, in so far as these items could be ascertained.

The number of organizations listed in this directory was 1,659, of which 137 were national and international organizations, 67 were state and district councils, 93 were central labor unions and councils, and 1,362 were local unions.

Labor Bulletin No. 170. Time Rates of Wages and Hours of Labor in Massachusetts, 1934.—This is the twenty-fifth of a series of annual reports of a similar nature, the first of which was issued by the former Bureau of Statistics in 1910. Nearly all of the information published in the earlier reports of this series was obtained from officials of labor organizations, and the reports for each of the years 1913 to 1923, inclusive, were published under the title "Union Scale of Wages and Hours of Labor in Massachusetts." From year to year additional information obtained from employers has been included and, beginning with the report for 1924, the reports have been issued under the more appropriate title "Time Rates of Wages and Hours of Labor in Massachusetts."

The information obtained from officials of local trade unions relates to basic rates and hours of labor, the terms of which in most instances are definitely expressed in joint agreements between employers and employees. These data are presented by industries, trades, and occupations and by municipalities represented. In the 1933 issue, by changing the method of presentation of certain classes of information, it was possible to reduce the number of pages in this report without omitting any details of importance. The same method of presentation was followed in 1934.

Additional information, obtained from official records of employers, has reference to rates of wages and hours of labor affecting employees in Massachusetts who are engaged in certain classes of municipal service, and by street and electric railway companies, and passenger bus companies.

Labor Bulletin No. 171. Census of Unemployment in Massachusetts, 1934.—(In preparation.) This census of unemployment was provided for by federal funds granted under C. W. A. and F. E. R. A. projects, and was taken (as of January 2, 1934) under the general supervision of the Department of Labor and Industries. About 250 copies of the preliminary report of the census were issued in planographed and mimeographed form. Provision was made for the publication of the final report (in substantially the same form as the preliminary report) for general distribution as an official report of this Department, and the cost of its publication is being borne by the Commonwealth. A statement with reference to this census appears later in this report.¹

MONTHLY SURVEYS AND PRESS NOTICES

Introductory.—From a small beginning in September, 1922, when reports were received from only 202 manufacturing establishments, in which 120,804 wage-earners were employed, the scope of the "monthly surveys" of employment and earnings of wage-earners in Massachusetts has been greatly extended. In December, 1934, 8,841 establishments were covered by the reports received that month, representing all important fields of employment in the State and covering 438,743 wage-earners.

Duplication of work in the collection of similar pay roll data by two governmental agencies is avoided by a co-operative arrangement between the Division of Statistics of this Department and the Bureau of Labor Statistics of the U. S. Department of Labor. The Federal Bureau has granted the franking privilege in

¹ See page 89.

connection with nearly all of this work and the postage expense on account of the surveys is very small.

Extension of Monthly Surveys.—During the past year special attention was given to increasing the number of reporting establishments in those industries or trade groups which were inadequately represented in the surveys. While a 40 per cent representation or "sample," based on the number of wage-earners employed, may be considered as adequate, an endeavor was made to secure a somewhat larger coverage where possible.

The monthly surveys, as conducted by this office and the Federal Bureau, were further extended by a Federal C. W. A. Project ("F-73 Employment and Pay Rolls") under the direction of the U. S. Department of Labor, Bureau of Labor Statistics. A Supervisor was appointed for each state, and in Massachusetts the Statistician for Labor Statistics was appointed, effective January 6, 1934. The allotment of personnel for this project in Massachusetts, in addition to the Supervisor, was 28 (22 field agents and six stenographer-clerks), of whom nine were employed during the period January 18 to March 15, and nineteen were employed for one month ending March 15. As a result of this project, 2,173 concerns, employing 73,645 wage-earners, were added to the list of those reporting. Particular attention was given to securing additional reports from manufacturers and from wholesale and retail trade establishments. The coverage in the other fields of employment already included in the monthly surveys in Massachusetts nearly fulfilled the requirements of the Federal Bureau, and it was necessary to secure only a few additional returns in those fields. The additional returns became a regular part of the monthly surveys of this Division and the Federal Bureau.

Co-operation with the U. S. Bureau of Labor Statistics.—In June, in response to a request from the U. S. Commissioner of Labor Statistics, the Division undertook the collection of certain code and pay roll statistics from nearly 200 companies in Massachusetts under the woolen and worsted goods code, using for this purpose the forms furnished by the Federal Bureau rather than the regular forms of this Division. This plan was adopted in order that manufacturers in this state would not be canvassed for similar data by two different agencies. In July about 80 paint, varnish, and lacquer companies, and ten companies operating fertilizer plants were added to the list. In September there were added 275 companies under the following codes: textile machinery, 125; set-up paper boxes, 95; folding paper boxes, 40; men's garters, suspenders, and belts, 15. In October, 66 companies were added, as follows: rubber goods, 52; tin cans, six; carpets and rugs, four; and office equipment, four. In November there were added nine companies under the hat code, and one under the ice refrigerator manufacturing code. During the six months over 600 additional concerns were added to the list of those reporting.

A special form, calling for pay roll information for each code under which the manufacturers were operating, was also sent to a large number of manufacturers in those industries, for which the information was required by the code authorities.

A new questionnaire, prepared by the U. S. Bureau of Labor Statistics for use in securing monthly pay roll data for manufacturing establishments, was substituted in October for the State form previously used. The new questionnaire provided for the reporting of pay roll data for "shop" employees as before, but called for additional information for office workers. The adoption of this questionnaire, which called for information in somewhat greater detail, and the securing of information for the use of code authorities, in many cases resulted in some delay in reporting during the later months of the year, and it was necessary to assign to the statistical investigators many more calls on delinquents than formerly, and the individual calls required more time because of explanations requested by manufacturers as to the proper method of reporting, and the purposes for which the information was desired. Notwithstanding these difficulties, the monthly surveys, although delayed somewhat, were completed before the close of the month following that to which the returns related.

Questionnaires Used.—The questionnaires used by the Division in its surveys are simple in form, and so devised that the information called for can readily be entered from the employers' pay rolls. The new "six-month form" (referred to

above), which is printed and supplied by the U. S. Bureau of Labor Statistics, is sent each month to all manufacturers on the reporting list.

The regular "six-month form" of the Division is sent to wholesale and retail trade establishments, employers of agricultural labor, and to employers of office and miscellaneous classes of employees. This form is returned to the employers each month for the addition of pay roll data for the next pay roll period. For public utilities three types of forms are used, each calling for certain details relating to that class of utility to which it applies. A special "one-month form" has been so devised that the building and highway contractors may furnish information by projects and locations, which usually vary from month to month. The form used in obtaining pay roll data from municipalities provides for reports by departments, separately, because in some municipalities there is no central office where pay roll records for all departments are on file. This form also provides for separate reporting of pay rolls for manual workers and clerical workers.

Press Notices. — With the questionnaire a mimeographed press notice, summarizing the returns for the previous pay roll period, is sent to reporting employers each month in order that they may compare the trends of employment and wages in their own plants or establishments with the corresponding trends for all reporting establishments in the same or closely allied industries or businesses in which they are engaged. These press notices are also sent to a large number of organizations and individuals who have requested them. During the past year there has been an increasingly large number of requests to be placed on the mailing list for one or more of the various notices.

The summaries show the number of establishments reporting, the number of wage-earners employed, and the earnings of those wage-earners according to the pay rolls of the reporting establishment. Certain other particulars are requested for the week including or ending nearest the 15th of the current month and the next preceding month if there was any unusual change in any of the factors because of seasonal fluctuations, closing down for inventory, wage adjustments, labor disputes, etc.

Coverage of the Surveys. — In Table 2 data are presented showing, for each industrial group covered by the surveys, the year and month in which the survey was first undertaken and (as of December, 1934) the number of establishments, the number of wage-earners covered, the total amount paid in wages (in one week) to the wage-earners covered, and the approximate size of the sample, expressed as percentages of the total number of persons in the respective industrial groups, according to the most recent census data available.

The estimated coverage for all classes combined is 55.0 per cent, and the percentage was also 55.0 for manufacturing and for wholesale and retail trade, which are the two largest groups and thus have considerable weighting in the total. Under "trade" the wholesale group has a representation of 45 per cent, and the retail group a 60 per cent representation. The public utility companies have the largest relative showing (95 per cent), as they are few in number and cover a wide field of operations. The representation in the building construction industry is only 25 per cent, but it is believed that the 685 contractors who reported in December would in normal times employ possibly 75 per cent of the building tradesmen in the State. Many former contractors now employ men only occasionally. The bulletins of the State Department of Public Works are used in compiling the list of contractors engaged in highway construction covered by this survey.

The representation for agricultural employment is relatively very small, because relatively few of the employers of agricultural labor employ any large force of workmen except during the planting or harvesting season. The representation in the several classes of wage-earners included under office and miscellaneous employment in no case is less than 25 per cent. In determining the extent to which the returns in connection with the monthly surveys are representative the very latest census data have been used as a base. The municipalities from which reports are received include all of the 39 cities and nearly all of the larger towns in the State, and, wherever possible, a representation of at least 50 per cent has been secured for the respective cities and towns.

Manufacturing. — During the past year about 450 establishments were added to

Table 2.—Coverage of Monthly Surveys of Employment and Earnings of Wage-earners in Representative Establishments in Massachusetts, by Industrial Groups: December, 1934

INDUSTRIAL GROUPS	SURVEY FIRST UNDEARTKEN		Number of Establish- ments Reporting	Number of Wage- Earners Covered	Total Amount of Wages Paid to Wage- Earners Covered (one week)	Appro- priate Size of Sample (Percent- age)
	Month	Year				
<i>Manufacturing</i>						
Wholesale and Retail Trade	Sept.	1922	1,575	232,932	\$4,563,710	55.0
Wholesale trade	Nov.	1929	5,342	99,848	2,040,317	55.0
Retail trade	Aug.	1931 ¹	863	18,162	481,571	45.0
Public Utilities	Aug.	1931 ¹	4,479	81,686	1,558,946	60.0
Steam railroads	Jan.	1929	1,297	45,993	1,334,797	95.0
Street and electric railways	Jan.	1929	6	21,186	571,347	100.0
Passenger bus companies	Jan.	1931	10	9,552	316,406	95.0
Gas and electric companies	Apr.	1931	29	13,767	45,243	90.0
Construction	Apr.	1927	82	13,488	401,801	95.0
Building construction	Apr.	1927	779	6,453	131,798	35.0
Highway construction	June	1927	685	4,850	120,326	25.0
Mineral Employment	Apr.	1931	94	603	11,472	90.0
Agricultural Employment	Sept.	1931	94	22,120	548,896	70.0
Office and Miscellaneous Employment	Mar.	1931	847	1,056	20,388	10.0
Amusement and Recreation:					746,566	40.0
Clubs and associations	March	1931	17	586	9,641	75.0
Theatres	March	1931	109	2,292	58,280	60.0
Hotel Employment:						
Hotels	March	1931	67	3,899	58,266	60.0
Hotel restaurants	Jan.	1932	27 ³	2,160	29,025	75.0
Institutional Employment:						
Hospitals	March	1931	30	3,570	55,155	25.0
Schools and colleges	March	1931	18	1,093	25,451	50.0
Office Employment:						
Banks and trust companies	March	1931	152	3,224	92,355	40.0
Insurance companies and agencies	March	1931	75	4,509	134,070	30.0
Miscellaneous offices	March	1931	82	2,736	66,110	20.0
Personal Services:						
Dyers and cleaners	March	1932	79	1,953	34,053	90.0
Laundries	March	1931	128	5,270	85,604	60.0
Trucking and Handling:						
Express and transfer companies	March	1931	28	1,006	26,739	60.0
Tanning, trucking, and handling	March	1931	62	2,846	71,817	60.0
Totals			8,861	442,546	\$9,386,672	—
Less duplication ⁴			20	3,803	110,091	—
All Industrial Groups Combined			8,841	438,743	\$9,276,551	55.0

¹ Based on number reported as "gainfully employed"—Federal Census, 1930, or later census data.

² Group sub-divided beginning with returns for the date shown.

³ Of the 67 hotels reporting, 27 operated restaurants.

⁴ Certain public utility companies are also included under "Manufacturing."

the list of those reporting, and in December the number was 1,575, or nearly 20 per cent of the total number of establishments engaged in manufacturing in Massachusetts, and about 55 per cent of the total number of wage-earners employed in manufacturing in the State were covered in the returns. Efforts are made to maintain a list of reporting establishments which shall be truly representative by industries, by municipalities, and by industries within the principal municipalities. By means of this survey, it is possible to determine shortly after the close of each month the trend of employment and pay rolls during that month in each of the principal manufacturing industries and cities in the State.

The series of index numbers is adjusted each year in conformity with the latest census returns and such changes are made from time to time in the list of reporting establishments as may be necessary to maintain a fully representative sample. It is not possible to maintain an absolutely identical list of reporting establishments for a long period of time because in the course of a year some of those reporting discontinue operations. In such cases other establishments in the same industries and municipalities are added to the list to replace those which cease to report. Because of unavoidable changes in the reporting establishments, the monthly index numbers are computed by the "link-relative" method.

The results of the monthly survey of manufacturing establishments are presented in press notices issued between the 15th and 20th of the month following that to which the data relate. These notices show, for 37 principal industries and 26 leading industrial cities, the following data: number of establishments reporting; and for the pay roll week including the 15th of the current and the next preceding month, the number of wage-earners employed, the amount of the pay roll and the average weekly earnings of those employed. In addition to the text and detailed tables there are also included in each issue a chart, showing the trend of employment and of the total amount paid in wages in all manufacturing establishments combined, a summary table showing percentage changes during the current month for each of the ten leading industries and for each of 11 of the leading cities, and index numbers of employment for all industries combined and for each of 20 leading industries.

Space does not permit of a full presentation in this report of the results of the monthly surveys, but two series of index numbers included in this section show the trends of employment of wage-earners and of the amounts paid in wages in all manufacturing industries as a group and in each of 20 leading industries in the State by months in 1934, with averages for each of the years 1925-1934, inclusive, and also for each of 15 of the leading industrial cities in 1933 and 1934. The index numbers of employment, by industries, for each of the years 1925-1932, inclusive, were derived from the annual census data, and the index numbers for 1933 and 1934 were derived from the monthly survey data. The index numbers representing amounts paid in wages were computed from the monthly survey data because the annual census schedule does not provide for the reporting of the amount of the pay rolls *by months*.

For the individual cities, the census data are not tabulated so as to show employment by months. Accordingly, the index numbers of employment and of amounts paid in wages in each of the cities have been computed from the monthly survey data and adjusted so that the respective averages for the year 1933 conform to the level as determined by the exhaustive census for the three years, 1925, 1926 and 1927, taken as a base (100).

In a series of charts¹ which appear in the appendix to this report, there are shown graphically the trends of employment and of the amounts paid in wages in all manufacturing industries combined and in each of the 20 leading industries by months during the years 1925-1934, inclusive, and the trends of employment in the 15 leading industrial cities in 1933 and 1934 by months.

The index numbers representing the trend of employment in all manufacturing industries combined and in the 20 principal industries are presented in Table 3.

¹ See charts, pages 106-114, Plates 1-9.

Table 3.—Index Numbers of Employment in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: By Months, for the Years 1925–1934, inclusive

Base.—100.0 = Average number of wage-earners employed during the three years, 1925, 1926 and 1927.

Sources.—Annual Census of Manufactures 1925–1932, inclusive; Monthly Survey of Representative Manufacturing Establishments, 1933 and 1934.

YEARS AND MONTHS	All Industries Combined	Cotton Goods	Boots and Shoes	Woolen and Worsted Goods	Electrical Machinery, Apparatus and Supplies	Foundry and Machine- shop Products	Printing and Publishing
<i>Number of Wage-earners¹</i>							
1925	590,616	92,841	57,710	53,526	25,908	19,953	14,442
1926	100.1	103.6	99.5	102.5	96.7	97.9	98.5
1927	102.0	98.5	103.5	102.1	107.7	102.3	101.9
1928	97.9	97.9	97.0	95.4	95.6	99.7	99.6
1929	91.6	70.2	96.1	84.5	95.7	99.2	101.3
1930	94.4	76.3	95.5	85.3	111.3	106.5	105.2
1931	81.5	57.9	85.1	65.6	93.5	92.7	104.2
1932 ²	73.6	50.6	82.6	69.5	77.4	73.9	91.6
1933 ²	59.3	35.0	75.0	53.4	52.4	51.0	83.2
1934	64.6	45.5	82.1	78.2	51.5	49.8	80.8
	68.3	50.6	75.8	73.4	60.4	57.2	82.4
<i>1934</i>							
January	67.4	52.6	70.7	80.1	56.6	55.2	82.0
February	71.8	57.8	83.8	86.7	58.5	56.6	82.7
March	72.9	60.0	82.1	86.2	58.5	57.2	82.9
April	73.6	61.5	86.0	79.1	62.9	58.1	83.6
May	72.4	60.4	85.6	75.8	62.9	57.0	83.4
June	68.2	54.6	74.0	64.8	63.6	56.9	82.1
July	66.5	51.4	75.4	66.4	61.2	57.9	80.7
August	67.2	49.1	81.9	64.6	60.1	57.0	82.3
September	56.5	12.2	79.1	30.8	59.7	56.3	83.6
October	67.6	49.0	69.0	69.2	60.1	57.1	82.1
November	66.6	46.6	60.5	81.8	59.6	57.4	81.0
December	69.0	52.5	62.0	95.6	60.7	59.4	82.4
<i>1934</i>							
YEARS AND MONTHS	Dyeing and Finishing Textiles	Paper and Wood Pulp	Textile Machinery and Parts	Rubber Footwear	Rubber Goods, Tires and Inner Tubes	Leather, Tanned, Curried, and Finished	Hosiery and Knit Goods
<i>Number of Wage-earners¹</i>							
1925	13,823	12,829	12,773	12,081	10,516	10,482	10,100
1926	100.4	100.7	107.2	94.3	102.1	99.6	104.5
1927	99.6	102.9	98.8	105.7	99.3	97.7	99.9
1928	100.0	96.4	94.0	100.0	98.6	102.7	95.6
1929	98.6	98.2	81.4	105.2	100.3	104.7	90.0
1930	104.5	96.4	83.0	92.4	92.9	102.2	87.3
1931	94.6	90.4	67.3	68.0	82.3	85.4	80.5
1932 ²	94.5	83.0	58.9	52.0	64.0	82.6	75.6
1933 ²	80.4	73.1	40.7	45.2	60.4	75.7	67.0
1934	84.0	71.7	57.5	51.2	73.3	92.2	68.7
	92.0	74.7	61.8	53.5	77.3	94.5	68.0
<i>1934</i>							
January	91.7	72.8	68.2	63.5	71.1	93.9	63.5
February	98.3	74.3	65.6	58.4	81.6	98.0	69.1
March	103.5	74.5	69.3	54.2	82.3	100.1	74.6
April	101.9	75.0	70.5	53.6	84.3	100.6	76.5
May	99.7	77.0	68.4	48.9	84.5	95.3	74.4
June	93.3	74.7	64.1	47.8	81.7	91.4	66.2
July	89.5	74.2	62.4	47.3	73.6	93.3	62.8
August	95.9	73.8	60.4	51.8	72.2	89.8	62.9
September	71.8	72.9	55.0	55.5	75.1	88.5	53.8
October	95.5	74.3	51.1	54.0	74.3	93.4	73.9
November	89.1	76.1	51.4	54.4	73.4	93.9	71.0
December	73.9	76.6	54.6	52.0	73.7	95.8	67.5

¹ Average number of wage-earners employed in 1925, 1926 and 1927 = 100.

² The index numbers for 1932 and 1933 have been revised to conform to the annual census data for 1932.

YEARS AND MONTHS	Clothing, Men's	Bread and Other Bakery Products	Confec- tionery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Goods ³	Clothing, Women's
<i>Number of Wage-earners¹</i>							
1925	9543	8533	8123	8117	7520	6804	6225
1926	93.3	98.8	93.9	96.5	92.9	95.5	88.1
1927	102.8	101.9	103.1	104.0	103.8	96.4	100.1
1928	104.0	99.3	103.1	99.5	103.2	108.1	111.9
1929	102.2	102.8	92.2	101.3	101.3	99.7	115.0
1930	100.0	122.0	92.0	105.9	101.8	108.6	121.8
1931	101.1	117.7	80.5	90.6	92.0	83.5	122.2
1932 ²	99.5	118.1	73.2	75.8	85.9	102.0 ³	135.7
1933 ²	83.3	109.2	63.8	59.9	77.4	83.0 ³	112.1
1934	111.3	112.0	62.5	64.7	76.6	139.1 ³	100.4
	130.7	122.3	66.3	64.4	74.8	108.9 ³	90.6
<i>1934</i>							
January	119.1	117.1	65.3	60.6	73.1	145.5	83.3
February	130.9	118.3	64.0	65.1	82.2	133.4	98.4
March	138.5	119.8	66.1	64.5	80.3	130.8	102.9
April	134.4	119.0	64.3	62.8	79.5	123.0	103.2
May	127.5	121.7	56.8	61.6	75.3	113.8	97.8
June	128.3	123.6	55.4	63.0	72.8	103.2	89.0
July	126.3	124.3	51.1	62.3	78.0	104.2	71.2
August	132.3	124.4	59.5	64.4	79.2	106.6	85.7
September	138.7	123.9	72.1	69.5	72.9	28.3	92.8
October	142.0	123.7	83.5	68.2	69.0	110.7	90.5
November	130.4	125.9	80.0	66.1	65.4	100.7	88.1
December	120.2	125.4	76.9	64.4	70.2	106.8	84.6

¹ Average number of wage-earners employed in 1925, 1926 and 1927 = 100.

² The index numbers for 1932 and 1933 have been revised to conform to the annual census data for 1932.

³ The index numbers beginning with 1931 are not directly comparable with those for earlier years because one large company was included under woolen and worsted goods through 1930, but thereafter was included under silk and rayon goods, which became the predominant products.

For all manufacturing industries, combined, the index numbers representing employment of wage-earners at the lowest point during the depression was 51.7, in July, 1932, since which month employment increased gradually but fairly steadily each month, except for occasional interruptions in the upward trend, until the highest point (73.6) was reached in April, 1934. In September, 1934, there was a very marked decrease in employment due to the general strike in the textile industry, when the index number of employment fell to 56.5. In October, following the settlement of the strike, the index rose to 67.6, which was almost the same as the index number (67.2) in August just prior to the strike. There was a decrease of one point in November, but in December the index number rose to 69.0. The average for the year 1934 was 68.3, or 31.7 per cent below the average for the basic three-year period, 1925-1927, but it was 3.7 points, or 5.7 per cent, above the corresponding index number (64.6) for 1933.

Of the leading manufacturing industries in the State, cotton goods manufacturing continued to be one of the industries most adversely affected by business conditions. The index number of employment in this industry was 52.6 in January, 1934. During the next three months there was some improvement which was followed by decreases each month to 49.1 in August. Toward the close of August a general textile strike occurred, and as a result of the strike the index number for September fell to 12.2. In October, following the settlement of the strike, employment increased, and the index number rose to 49.0; then fell slightly to 46.6 in November, and in December there was a gain to 52.5. The improvement during the early months in 1934 was offset by unsettled conditions in the fall, with the result that the index number for the year was only 50.6, which, however, exceeded by 5.1 points, or 11.2 per cent, the corresponding index number (45.5) for 1933, and by 15.6 points, or 44.6 per cent, the corresponding index number (35.0) for 1932.

In the boot and shoe industry, the usual seasonal improvement began in February, and continued through March, April and May, but during the remainder of the year, with the exception of August, employment was at a relatively low level, and the index number in November fell to 60.5, followed by only a slight increase to 62.0 in December. The index number for the year 1934 was 75.8, a decrease of 7.7 per cent when compared with 82.1 in 1933, and was only slightly greater than the index number (75.0) for 1932.

In the woolen and worsted goods industry, the conditions in 1934 were somewhat similar to those in the cotton goods industry, but the reduction in the number of

wage-earners employed was, proportionately, much less than in the cotton goods industry. The index numbers representing employment in January, February and March were 80.1, 86.7 and 86.2, respectively. Thereafter the trend was downward until October, except for a slight increase in July. In September, as a result of the general textile strike, the index number was 30.8. In October, following the settlement of the strike, the index number rose to 69.2, and there were further gains to 81.8 in November and to 95.6 in December.

Employment in the manufacture of electrical machinery, apparatus, and supplies (including radio apparatus) showed little change throughout the year 1934. The average of the monthly index numbers of employment was 60.4, as compared with 51.5 for 1933.

In the foundry and machine shop industry the changes in employment from month to month in 1934 were relatively small. The index number for the year was 57.2, as compared with 49.8 in 1933.

The five major industries discussed above normally provide employment for somewhat over 40 per cent of the total number of wage-earners employed in all manufacturing industries in the State, but the number employed in these five industries in 1934 together represented less than 40 per cent of the total, indicating that these major industries were more adversely affected than were the other manufacturing industries considered as a group.

In the 20 leading industries for which index numbers of employment are presented in Table 3, the averages of the monthly index numbers for the year 1934, ranged in order from the highest to the lowest, were as follows: men's clothing, 130.7; bread and other bakery products, 122.3; silk and rayon goods, 108.9; leather (tanned, curried and finished), 94.5; dyeing and finishing textiles, 92.0; women's clothing, 90.6; printing and publishing, 82.4; rubber goods, tires and inner tubes, 77.3; boots and shoes, 75.8; boot and shoe cut stock and findings, 74.8; paper and wood pulp, 74.7; woolen and worsted goods, 73.4; hosiery and knit goods, 68.0; confectionery, 66.3; furniture, 64.4; textile machinery, 61.8; electrical machinery, apparatus and supplies, 60.4; foundry and machine shop products, 57.2; rubber footwear, 53.5; and cotton goods, 50.6.

The general textile strike, in addition to seriously affecting employment and wage payments in the cotton goods and the woolen and worsted goods industries, likewise affected, but much less seriously, the silk and rayon goods industry, the dyeing and finishing of textiles, and the hosiery and knit goods industry.

Index numbers representing the total amount paid in wages to wage-earners employed in all manufacturing industries, combined, and in each of the 20 principal industries during the years 1925-1934, inclusive, are presented in Table 4.

The total amount paid in wages to the wage-earners employed in all manufacturing industries, combined, in 1934, was less by 45.4 per cent than the average amount paid in wages for the three years, 1925-1927, taken as a base period, but the index number (54.6) in 1934, exceeded by 6.8 points, or 14.2 per cent, the corresponding index number (47.8) for the year 1933. An examination of the records for prior years shows that the trend of the total amounts paid in wages ordinarily followed very closely the trend of employment, but during the period of the depression the losses in the amount of wages paid were, relatively, much greater than the decreases in the numbers of wage-earners employed, due not only to reductions in the numbers employed, but also to part-time employment, and decreases in rates of wages of those who were employed. For example, the index number representing the amount paid in wages in 1932 (the worst year of the depression) was 46.4, while the index number representing employment was 59.3. In 1933, the number of wage-earners employed increased at a proportionately greater rate than the amount paid in wages, but in 1934, the converse was true, indicating that not only was there an increase in the number of wage-earners employed in 1934, but also an increase in the earnings of those employed, as a result of more hours of employment and increases in the rates of wages which they received.

The index numbers representing the amounts paid in wages in 1934 in the 20 leading industries, arranged in order from the highest to the lowest, were as follows: bread and other bakery products, 104.3; men's clothing, 101.9; leather, tanned, curried, and finished, 80.9; silk and rayon goods, 78.5; printing and pub-

Table 4.—Index Numbers of Total Amount Paid in Wages in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: for the Years 1925–1934, inclusive, and by Months in 1934

Base—100.0 = Average amount paid in wages to wage-earners employed in the three-year period, 1925–1926–1927.

Sources—Annual Census of Manufacturers, 1925–1932, inclusive; Monthly Survey of Representative Manufacturing Establishments, 1933 and 1934.

YEARS AND MONTHS	All Industries Combined	Cotton Goods	Boots and Shoes	Woolen and Worsted Goods	Electrical Machinery, Apparatus and Supplies	Foundry and Machine- shop Products	Printing and Publishing
1925 ¹	99.5	102.5	97.7	105.3	97.4	96.6	97.8
1926 ¹	102.5	99.2	105.0	100.5	108.6	103.0	101.0
1927 ¹	98.0	98.3	97.3	94.2	94.0	100.4	101.2
1928 ¹	93.1	68.3	95.2	84.2	94.2	101.7	105.6
1929 ¹	96.5	73.2	95.7	84.9	113.8	110.1	111.7
1930 ¹	79.7	52.9	75.9	63.7	88.6	92.1	107.6
1931 ¹	65.9	43.4	68.1	60.7	63.1	62.9	93.2
1932 ¹	46.4	25.3	54.9	36.8	34.0	41.9	78.1
1933 ²	47.8	32.8	54.6	60.9	32.1	33.0	69.8
1934 ²	54.6	47.4	57.4	60.5	41.8	41.7	76.9
<i>1934²</i>							
January	52.0	42.2	48.4	66.2	36.7	39.6	71.8
February	57.6	46.4	69.6	71.7	37.6	41.1	74.4
March	59.3	49.1	70.5	71.6	38.8	41.6	76.0
April	59.5	49.8	71.8	64.2	44.3	42.4	76.4
May	58.4	46.4	67.6	61.5	44.7	42.2	79.1
June	53.9	40.8	52.0	51.1	44.3	41.9	78.6
July	53.2	39.2	59.9	52.4	42.0	42.6	75.9
August	54.0	38.2	65.8	59.4	41.8	41.5	79.9
September	46.6	87.6	57.1	23.1	41.6	40.4	82.9
October	52.1	36.5	46.2	52.0	43.2	38.4	75.4
November	50.9	49.3	36.5	65.1	42.6	41.2	72.2
December	57.3	42.9	42.8	87.1	44.4	47.2	79.7

YEARS AND MONTHS	Dyeing and Fin- ishing Textiles	Paper and Wood Pulp	Textile Machinery	Rubber Footwear	Rubber Goods, Tires and Inner Tubes	Leather, Tanned, Curried and Finished	Hosiery and Knit Goods
1925 ¹	100.0	98.9	105.0	95.4	102.1	99.4	102.0
1926 ¹	99.2	105.2	99.1	95.4	100.2	98.3	99.9
1927 ¹	100.8	95.8	95.9	109.2	97.7	102.3	98.1
1928 ¹	97.7	98.9	80.6	105.6	100.7	101.9	96.2
1929 ¹	104.7	100.3	84.1	95.4	91.1	99.6	93.9
1930 ¹	92.2	89.7	62.1	65.5	76.8	81.7	82.7
1931 ¹	92.7	72.1	52.4	45.1	57.0	75.0	71.1
1932 ¹	64.5	53.6	30.4	31.5	42.4	60.7	55.7
1933 ²	65.0	46.6	47.0	37.5	51.8	75.4	54.4
1934 ²	72.1	53.0	50.8	41.3	60.2	80.9	60.3
<i>1934²</i>							
January	71.4	47.5	55.0	47.6	54.0	78.6	53.4
February	82.0	53.8	56.6	44.2	62.5	84.8	64.9
March	86.2	54.5	60.8	40.9	64.4	86.2	70.9
April	73.6	54.5	60.8	41.8	65.2	85.2	61.9
May	78.5	55.1	61.8	37.8	66.0	84.3	64.1
June	68.0	53.2	52.9	36.0	63.8	79.0	58.9
July	66.7	52.3	53.0	36.7	57.6	80.5	51.2
August	74.8	52.6	47.6	41.1	56.1	76.1	52.9
September	60.8	51.8	41.8	43.9	59.9	74.1	50.6
October	71.8	50.9	35.6	39.4	58.0	78.7	66.3
November	67.8	51.9	37.1	44.0	55.5	80.0	64.4
December	63.1	57.6	46.8	42.1	58.8	83.0	63.7

¹ Index numbers have been revised to conform to annual census data.

² Index numbers for 1933 and 1934 were derived from monthly survey data.

YEARS AND MONTHS	Clothing, Men's	Bread and Other Bakery Products	Confection- ery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Goods ³	Clothing, Women's
1925 ¹	91.2	100.6	94.4	93.3	93.0	93.8	85.0
1926 ¹	105.1	102.0	104.4	105.5	104.3	101.8	101.3
1927 ¹	103.7	97.4	101.2	101.2	102.7	104.4	113.7
1928 ¹	97.4	100.2	96.6	101.9	96.4	97.9	109.9
1929 ¹	100.2	121.0	94.2	109.4	97.6	97.4	121.7
1930 ¹	93.1	115.1	87.9	87.9	84.4	80.8	114.1
1931 ¹	83.0	112.6	69.6	64.7	74.0	79.7 ³	110.4
1932 ¹	61.8	94.0	52.7	44.3	60.0	57.2 ³	77.3
1933 ²	77.2	94.6	46.0	43.2	60.0	101.2 ³	65.9
1934 ²	101.9	104.3	56.8	45.6	63.6	78.5 ³	69.7
<i>1934²</i>							
January	90.5	100.2	57.7	39.6	63.3	109.3	61.2
February	103.3	102.2	53.4	44.7	74.9	92.7	76.6
March	111.5	102.3	57.4	43.7	70.3	96.0	83.8
April	109.5	100.4	53.8	43.4	69.6	84.0	87.9
May	92.8	104.7	47.7	43.7	64.2	85.5	77.0
June	88.7	106.5	45.9	44.9	59.6	73.2	65.2
July	100.4	105.2	41.4	42.3	70.7	74.4	49.6
August	108.5	105.0	49.7	45.6	70.8	71.3	64.5
September	114.6	106.6	64.1	51.4	59.3	22.2	73.4
October	116.4	104.0	71.3	50.5	52.6	78.2	71.1
November	102.0	108.1	67.3	48.3	48.6	69.9	62.6
December	84.5	106.0	72.2	48.9	59.7	85.2	63.5

¹ Index numbers have been revised to conform to annual census data.

² Index numbers for 1933 and 1934 were derived from monthly survey data.

³ The index numbers beginning with 1931 are not directly comparable with those for earlier years because one large company was included under woolen and worsted goods through 1930, but thereafter was included under silk and rayon goods, which became the predominant products.

lishing, 76.9; dyeing and finishing textiles, 72.1; women's clothing, 69.7; boot and shoe cut stock and findings, 63.6; woolen and worsted goods, 60.5; hosiery and knit goods, 60.3; rubber goods, tires, and inner tubes, 60.2; boots and shoes, 57.4; confectionery, 56.8; paper and wood pulp, 53.0; textile machinery and parts, 50.8; cotton goods, 47.4; furniture, 45.6; electrical machinery, apparatus, and supplies, 41.8; foundry and machine shop products, 41.7; and rubber footwear, 41.3.

In several of the leading industries there was a relatively large improvement in the amount of wages paid, in 1934, as compared with 1933, as follows: cotton goods; electrical machinery, apparatus, and supplies; foundry and machine shop products; printing and publishing; dyeing and finishing textiles; paper and wood pulp; rubber goods, tires, and inner tubes; men's clothing; bread and other bakery products; and confectionery.

The earnings of employees are affected by the continuity of their employment, by part-time employment, and by changes in wage rates. The average weekly earnings of wage-earners employed in all manufacturing industries, combined, and in each of twenty leading industries for each of the years 1925 to 1934, and also by months in 1934, are presented in Table 5. The averages for the years 1925-1933 were derived from the annual census of manufactures for the respective years, and the average weekly earnings by months in 1934 were as reported by representative manufacturing establishments in connection with the monthly survey.

The effect of the depression on the earnings of wage-earners is indicated by a comparison of the average weekly earnings during the ten-year period under consideration with the corresponding earnings during the base period, 1925-1927. For all manufacturing industries, combined, there was a decrease from \$23.39, the average for 1925-1927, to the lowest amount, \$17.06 in 1933, — a decrease of 27.1 per cent. There were similar decreases in each of the 20 leading industries. The industries most adversely affected were principally those employing a large proportion of women.

For the 20 principal manufacturing industries, the average weekly earnings in 1934, arranged in order from the highest to the lowest, were as follows: printing and publishing, \$29.19; foundry and machine-shop products, \$22.70; leather, tanned, curried, and finished, \$22.67; electrical machinery, apparatus, and supplies, \$20.39; bread and other bakery products, \$20.26; rubber goods, tires, and inner tubes, \$19.74; rubber footwear, \$19.65; textile machinery and parts, \$19.45; dyeing and finishing textiles, \$18.82; paper and wood pulp, \$18.67; boot and shoe cut stock and findings, \$17.69; furniture, \$17.49; boots and shoes, \$17.34; woolen

and worsted goods, \$16.41; confectionery, \$16.17; men's clothing, \$15.96; silk and rayon goods, \$15.96; hosiery and knit goods, \$15.66; women's clothing, \$15.57; and cotton goods, \$15.04.

Table 5.—Average Weekly Earnings of Wage-earners in Manufacturing Establishments in Massachusetts, All Industries Combined and Twenty Leading Industries: for the Years 1925-1934, inclusive, and by Months in 1934

Base.—Average Weekly Earnings of Wage-earners Employed in the Three-Year Period, 1925-1926-1927.

Sources.—Annual Census of Manufacturers, 1925-1933, and Monthly Survey of Representative Manufacturing Establishments, 1934.

YEARS AND MONTHS	All Industries Combined	Cotton Goods	Boots and Shoes	Woolen and Worsted Goods	Electrical Machinery, Apparatus, and Supplies	Foundry and Machine- shop Products	Printing and Publishing
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<i>Basic Weekly Earnings¹</i>	\$23.39	\$18.52	\$22.29	\$22.08	\$26.68	\$28.78	\$33.44
1925	23.23	18.31	21.88	22.70	26.87	28.39	33.17
1926	23.51	18.64	22.62	21.75	26.91	28.98	33.16
1927	23.42	18.59	22.37	21.80	26.27	28.98	33.99
1928	23.76	18.01	22.08	21.99	26.29	29.49	34.86
1929	23.91	17.76	22.35	21.97	27.27	29.77	35.48
1930	22.86	16.90	19.85	21.44	25.31	28.61	34.51
1931	20.94	15.87	18.38	19.29	21.76	24.51	34.02
1932	18.29	13.41	16.33	15.23	17.32	23.66	31.38
1933	17.06	13.14	15.00	15.93	17.81	21.03	27.58
1934	18.98	15.04	17.34	16.41	20.39	22.70	29.19

1934

January	18.59	15.40	16.14	17.75	19.02	22.20	27.73
February	19.31	15.40	19.48	17.74	18.82	22.50	28.42
March	19.36	15.92	20.01	16.98	19.51	23.02	28.65
April	19.17	15.77	19.31	16.35	20.71	23.41	28.65
May	19.15	15.01	18.24	16.31	20.89	23.70	29.69
June	18.78	14.60	16.23	15.86	20.48	23.56	30.00
July	19.01	14.91	18.34	15.93	20.24	23.47	29.49
August	19.05	15.22	18.54	15.51	20.47	22.62	30.46
September	19.50	14.02	16.68	15.06	20.52	22.30	30.88
October	18.21	14.53	15.42	15.10	21.25	20.88	28.62
November	18.04	13.70	13.89	16.00	21.11	21.25	27.69
December	19.55	15.95	15.84	18.31	21.65	23.51	30.04

YEARS AND MONTHS	Dyeing and Fin- ishing Textiles	Paper and Wood Pulp	Textile Machinery and Parts	Rubber Footwear	Rubber Goods, Tires, and Inner Tubes	Leather, Tanned, Curried, and Finished	Hosiery and Knit Goods
<i>Basic Weekly Earnings¹</i>	\$22.34	\$24.39	\$25.45	\$22.54	\$24.84	\$26.10	\$18.10
1925	22.26	24.39	24.90	22.78	24.83	26.05	17.66
1926	22.25	25.35	25.51	20.29	25.07	26.25	18.09
1927	22.52	24.67	25.94	24.56	24.61	25.99	18.54
1928	22.15	24.99	25.18	22.58	24.93	25.40	19.33
1929	22.37	25.83	25.76	23.23	24.36	25.45	19.46
1930	21.76	24.60	23.44	21.68	23.17	24.95	18.58
1931	21.92	21.54	22.59	19.54	22.12	23.70	17.00
1932	17.90	18.20	19.02	15.68	17.46	20.92	15.03
1933	17.79	16.56	19.22	16.49	17.39	21.29	13.80
1934	18.82	18.67	19.45	19.65	19.74	22.67	15.66

1934

January	18.68	17.15	19.07	19.05	19.87	22.18	14.98
February	20.01	19.01	20.43	19.20	20.03	22.92	16.72
March	19.98	19.32	20.88	19.18	19.94	22.90	16.88
April	17.31	19.16	20.49	19.80	19.71	22.45	14.25
May	18.82	18.87	21.53	19.62	19.85	23.46	15.19
June	17.43	18.77	19.67	19.15	19.86	22.91	15.67
July	17.86	18.59	20.24	19.71	19.89	22.85	14.38
August	18.70	18.74	18.76	20.18	19.77	22.42	14.82
September	20.31	18.68	18.09	20.14	19.80	22.16	16.59
October	18.04	18.01	16.60	18.58	19.38	22.32	15.81
November	18.25	17.94	17.20	20.60	18.90	22.56	15.98
December	20.47	19.77	20.41	20.63	19.92	22.94	16.63

¹ Average for the three years, 1925, 1926 and 1927.

YEARS AND MONTHS	Clothing, Men's	Bread and Other Bakery Products	Confe- ctionery	Furniture	Boot and Shoe Cut Stock and Findings	Silk and Rayon Goods	Clothing, Women's
<i>Basic Weekly Earnings</i> ¹							
1925	19.35	25.92	16.99	24.91	21.94	20.19	20.68
1926	20.23	25.49	17.12	26.15	22.05	21.72	21.67
1927	19.79	24.97	16.59	26.19	21.82	19.86	22.59
1928	18.84	24.83	17.72	25.91	20.87	20.19	20.46
1929	19.85	25.24	17.32	26.61	21.02	18.44	21.40
1930	18.45	24.90	18.45	24.99	20.13	19.89	20.00
1931	16.51	24.27	16.09	21.98	18.89	16.06	17.70
1932	14.69	21.92	13.95	19.03	17.02	14.16	14.77
1933	13.83	21.15	13.74	16.77	15.99	13.47	13.87
1934	15.96	20.26	16.17	17.49	17.69	15.96	15.57
<i>1934</i>							
January	15.55	20.45	16.83	16.10	18.30	16.63	14.84
February	16.15	20.63	16.07	16.92	19.25	15.39	15.71
March	16.55	20.37	16.65	16.70	18.33	16.23	16.47
April	16.76	20.13	16.03	17.02	18.21	15.10	17.37
May	14.98	20.53	16.08	17.56	17.69	16.52	16.05
June	14.21	20.58	15.88	17.60	17.01	15.60	14.94
July	16.31	20.17	15.25	16.81	18.85	15.72	14.21
August	16.83	20.13	15.64	17.54	18.60	14.72	15.34
September	16.95	20.14	16.63	18.33	16.91	17.25	16.12
October	16.83	19.63	15.97	18.36	15.86	15.54	16.01
November	16.05	20.06	15.66	18.11	15.49	15.28	14.47
December	14.38	20.27	17.37	18.85	17.75	17.57	15.29

¹ Average for the three years, 1925, 1926 and 1927.

There are presented in Table 6 index numbers representing the average number of wage-earners employed in manufacturing in each of the years 1925-1934, inclusive, in each of 15 of the leading industrial cities in Massachusetts. The index numbers for 1933 have been adjusted in conformity with the exhaustive census returns, and the monthly trends in 1933 and 1934 were derived from the monthly survey data.

In the 15 cities for which index numbers of employment in the manufacturing industries are presented in Table 6, the index numbers for 1934, arranged in order from the highest to the lowest, were as follows: Peabody, 94.8; Springfield, 88.0; Worcester, 82.3; Lawrence, 80.1; Fall River, 76.0; Brockton, 75.5; Cambridge, 72.8; Haverhill, 67.8; New Bedford, 66.0; Boston, 64.3; Lynn, 64.2; Fitchburg, 61.1; Lowell, 56.8; Holyoke, 54.7; and Chicopee, 54.4.

The general textile strike in September, 1934, seriously affected employment in several of the cities. For example, in Fall River the index number of employment in August before the strike was 75.2, during the strike in September it fell to 9.9, and in October it increased to 72.1. In New Bedford the corresponding index numbers were 64.4, 12.5, and 66.7. Seasonal trends were very evident in Brockton, Haverhill, and other cities in which the manufacture of boots and shoes is an important industry. The smallest variation from month to month occurred in those cities in which the industries were diversified, namely, Boston, Cambridge, Springfield and Worcester.

In Table 7 index numbers representing the total amounts paid in wages in the manufacturing industries in 15 leading industrial cities are presented for the years 1925-1934, inclusive. The index numbers for these 15 cities in 1934, arranged in order from the highest to the lowest, were as follows: Peabody, 81.6; Springfield, 70.5; Worcester, 62.6; Cambridge, 61.7; Brockton, 60.6; Lawrence, 60.2; Boston, 53.6; New Bedford, 51.3; Haverhill, 50.9; Lynn, 50.5; Lowell, 48.4; Fitchburg, 46.4; Holyoke, 41.6; Fall River, 33.1; and Chicopee, 43.2. There were increases in the amounts paid in wages in 1934 as compared with 1933 in Boston, Brockton, Cambridge, Chicopee, Fitchburg, Haverhill, Lawrence, Lynn, New Bedford, Peabody, Springfield, and Worcester, and in Fall River, Holyoke, and Lowell there were decreases.

Table 6.—Index Numbers of Employment in Manufacturing Industries in 15 Leading Industrial Cities in Massachusetts for the Years 1925–1934, inclusive

Base.—100.0 = Average Number of Wage-earners Employed in the Three-Year Period—1925, 1926 and 1927.

Sources.—Annual Census of Manufactures, 1925–1932, inclusive; Monthly Survey of Representative Manufacturing Establishments, 1933 and 1934.

YEARS AND MONTHS

Average Number of Wage-earners ¹	Boston	Brockton	Cambridge	Chicopee	Fall River	Fitchburg	Haverhill	Holyoke
1925	78,864	12,682	21,859	10,171	31,146	8,411	11,080	16,499
1926	98.7	103.8	100.4	103.6	98.2	105.5	104.0	103.0
1927	102.9	100.6	103.9	102.4	100.7	100.0	107.5	98.9
1928	98.4	95.6	95.7	94.0	101.1	94.5	88.5	98.1
1929	96.3	95.7	97.7	103.1	82.0	76.7	87.2	88.7
1930	97.7	99.3	100.6	105.8	84.3	78.2	75.5	83.5
1931	87.4	92.2	88.6	80.4	68.5	68.7	72.9	69.5
1932	74.1	84.0	73.8	64.2	70.8	60.5	64.4	62.8
1933	58.7	63.0	63.5	49.4	55.6	50.6	64.3	51.3
1934	64.3	75.5	72.8	54.4	76.0	61.1	67.8	54.7
<i>1933</i>								
January	57.5	71.7	60.2	46.0	69.4	58.9	65.9	54.7
February	58.8	72.8	63.0	46.3	69.1	54.3	81.0	54.2
March	56.6	72.0	62.1	42.7	55.6	50.3	59.2	52.1
April	57.3	72.0	63.0	32.6	61.5	48.9	72.3	51.6
May	59.1	69.3	63.7	36.7	63.6	55.2	77.9	56.8
June	58.5	67.8	65.5	48.0	75.2	62.3	81.5	66.0
July	60.7	77.2	69.5	53.4	79.0	66.5	86.3	75.2
August	57.8	83.4	73.2	56.7	69.6	68.0	81.5	80.1
September	65.3	39.5	77.8	54.7	78.3	65.6	91.4	77.4
October	66.4	63.4	78.5	51.5	85.0	68.9	84.0	73.4
November	62.0	77.6	77.4	47.5	86.5	66.7	58.9	68.0
December	57.4	71.6	75.6	46.3	83.2	63.7	63.7	64.6
<i>1934</i>								
January	58.4	61.5	70.6	47.0	86.0	58.6	63.7	65.0
February	62.5	79.8	73.0	56.3	91.3	59.7	69.1	59.4
March	65.0	81.3	71.6	59.2	95.0	60.7	49.2	60.2
April	66.6	79.7	72.2	57.7	94.4	61.4	70.8	58.7
May	66.8	77.9	72.9	57.9	94.1	64.0	69.4	58.0
June	63.3	73.0	73.3	61.9	88.7	64.0	63.0	53.4
July	61.9	76.4	71.6	55.9	84.8	61.0	76.0	53.4
August	63.8	80.1	72.1	54.2	75.2	59.8	81.1	53.5
September	65.4	75.9	73.2	52.6	9.9	58.7	77.0	29.2
October	66.8	74.7	75.6	48.8	72.1	59.5	72.2	54.6
November	66.3	75.2	73.3	47.3	57.3	60.8	55.9	54.2
December	64.7	70.2	74.5	53.8	63.5	65.1	66.6	57.3
<i>1933</i>								
January	25,983	20,405	20,551	35,308	6,085	17,989	31,047	
February	101.1	105.7	92.2	101.1	95.7	98.3	100.3	
March	103.1	102.2	106.8	99.5	99.3	108.4	101.9	
April	95.8	92.1	101.0	99.4	105.0	93.3	97.8	
May	81.0	84.5	97.7	60.2	109.1	99.2	96.9	
June	89.1	88.8	99.8	91.1	104.9	103.6	102.8	
July	79.2	68.5	86.1	72.9	93.5	86.8	88.7	
August	90.4	67.2	76.3	66.7	89.0	77.5	77.2	
September	66.3	58.9	61.5	46.6	79.5	62.3	54.8	
October	82.6	65.2	59.7	65.9	89.8	69.4	74.6	
November	80.1	56.8	64.2	66.0	94.8	88.0	82.3	
<i>1934</i>								
January	66.8	65.1	49.3	60.0	74.5	60.6	60.2	
February	80.4	70.5	59.1	62.8	85.4	59.3	59.9	
March	66.3	68.0	51.6	55.4	84.1	56.3	59.5	
April	70.1	64.4	51.8	47.3	69.9	55.5	59.4	
May	81.3	46.8	56.4	51.5	76.6	59.1	64.6	
June	90.0	61.4	51.6	61.4	89.7	64.6	69.6	
July	98.5	68.8	59.7	74.9	103.4	68.8	77.7	
August	104.6	74.3	62.0	78.6	102.3	76.7	86.5	
September	91.7	67.6	70.1	78.1	99.1	82.5	91.5	
October	90.4	70.8	71.8	78.9	101.1	83.1	92.8	
November	76.6	62.2	69.1	74.0	96.3	82.6	89.8	
December	76.5	62.7	63.8	67.2	95.4	83.2	83.5	
<i>1933</i>								
January	83.8	60.5	64.3	69.9	95.5	83.8	80.1	
February	91.1	63.9	68.1	78.5	98.4	86.1	85.0	
March	94.5	66.2	67.2	80.9	99.5	88.4	87.4	
April	86.6	67.1	68.5	82.8	102.1	94.2	88.5	
May	83.5	63.7	71.6	76.3	95.8	89.7	87.8	
June	68.3	57.5	63.1	68.4	91.9	87.9	85.4	
July	69.4	58.9	61.8	62.8	93.3	86.8	80.6	
August	65.6	56.8	67.4	64.4	86.3	87.9	80.1	
September	49.7	34.4	63.7	12.5	88.6	88.3	75.5	
October	75.1	52.6	59.9	66.7	94.0	86.8	79.3	
November	89.1	50.1	54.8	62.8	94.1	85.9	78.0	
December	104.0	51.2	59.9	65.8	97.6	89.8	80.3	

¹ Average number of wage-earners in 1925, 1926, and 1927 = 100.

Table 7.—Index Numbers of Total Amounts Paid in Wages in Manufacturing Industries in Fifteen Leading Industrial Cities in Massachusetts for the Years 1925–1934, inclusive

Base.—100.0 = Average Amount Paid in Wages per Week in the Three Years—1925, 1926 and 1927.

Sources.—Annual Census of Manufactures, 1925–1932, inclusive; Monthly Survey of Representative Manufacturing Establishments, 1933 and 1934.

YEARS AND MONTHS

Average Amount Paid in Wages per Week	Boston	Brockton	Cambridge	Chicopee	Fall River	Fitchburg	Haverhill	Holyoke
1925	\$2,039,987	\$294,147	\$527,490	\$252,173	\$558,883	\$196,173	\$258,751	\$359,585
1926	97.6	102.7	99.7	103.9	96.9	102.7	103.0	101.1
1927	104.0	101.1	104.6	102.6	102.4	102.8	109.0	101.3
1928	98.4	96.2	95.7	93.5	100.7	94.5	88.0	97.6
1929	98.6	95.3	98.2	103.3	79.0	81.6	84.6	89.1
1930	99.5	100.1	99.8	108.1	79.8	78.9	77.5	87.5
1931	88.0	89.0	89.1	79.9	64.6	66.7	66.2	71.1
1932	68.4	69.1	69.3	61.0	60.5	50.7	53.6	56.9
1933	49.8	50.0	49.7	39.8	41.0	35.9	45.5	40.8
1934	46.0	50.3	51.3	32.5	53.9	38.5	49.6	47.7

1933

January	43.0	47.6	43.6	30.2	45.5	34.2	37.5	36.9
February	43.7	49.9	46.9	32.7	47.3	31.2	55.3	36.3
March	40.7	48.8	43.1	25.6	35.7	27.4	33.9	32.6
April	44.0	51.1	44.6	16.7	35.4	26.8	46.2	30.2
May	45.3	49.7	46.0	25.2	42.6	32.9	58.4	41.3
June	44.0	50.9	48.2	34.9	56.1	41.1	58.4	51.7
July	47.6	62.8	53.4	38.6	59.8	44.2	59.2	60.2
August	44.8	70.1	55.1	42.3	57.4	45.5	55.1	64.1
September	51.4	29.0	60.7	39.8	62.1	45.3	70.3	61.9
October	52.8	43.6	60.5	35.2	68.0	45.3	56.9	56.4
November	48.8	54.4	55.7	34.0	69.4	45.8	29.4	51.5
December	46.1	45.3	57.8	34.2	68.3	42.6	34.6	49.0

1934

January	46.6	45.5	56.6	36.9	70.9	40.2	41.6	47.0
February	51.7	74.8	60.4	44.2	74.4	43.1	59.2	44.1
March	54.7	74.7	59.7	47.8	78.4	45.6	38.4	46.9
April	57.2	68.2	59.8	45.8	69.5	46.4	55.4	43.5
May	56.7	57.3	62.9	48.0	78.6	49.7	55.0	45.4
June	53.0	52.1	61.9	49.7	67.4	50.8	49.7	40.2
July	52.4	65.3	61.4	43.3	66.7	46.9	58.6	40.8
August	54.0	68.1	63.5	42.7	60.6	45.9	65.5	38.9
September	54.7	59.1	65.7	39.7	10.6	42.9	57.4	23.9
October	54.9	54.2	62.4	37.2	54.5	44.8	49.0	40.0
November	52.9	49.9	60.8	38.2	43.4	45.7	35.7	40.5
December	54.2	57.5	65.3	44.7	53.0	54.8	44.9	47.9

YEARS AND MONTHS

Average Amount Paid in Wages per Week	Lawrence	Lowell	Lynn	New Bedford	Peabody	Springfield	Worcester
1925	\$583,913	\$390,446	\$542,184	\$698,356	\$150,550	\$457,322	\$819,296
1926	101.8	104.0	92.9	101.9	94.6	97.3	99.1
1927	103.1	103.2	106.2	98.1	100.1	110.4	104.0
1928	95.1	92.8	100.9	100.0	105.3	92.3	96.9
1929	80.8	86.2	96.9	61.8	104.8	100.0	99.2
1930	88.5	84.0	101.1	87.3	104.1	99.6	105.9
1931	76.0	66.6	81.9	67.5	89.0	85.0	83.2
1932	80.2	61.5	62.4	56.0	83.6	72.3	63.8
1933	43.2	47.8	41.4	33.5	65.3	50.5	41.0
1934	57.8	51.1	41.0	44.6	76.2	52.3	52.3

1933

January	44.6	47.9	27.9	37.3	59.4	44.8	35.8
February	54.6	54.2	36.8	37.2	68.0	43.4	36.5
March	38.4	49.7	29.3	31.0	64.7	40.3	34.7
April	41.2	43.9	31.1	26.7	52.3	39.7	34.1
May	51.7	34.7	36.8	32.8	66.6	43.4	41.5
June	63.4	47.8	33.0	39.7	82.5	49.1	48.9
July	73.8	56.7	42.3	49.1	96.5	53.5	56.8
August	81.1	65.1	48.7	60.0	91.5	56.7	65.9
September	69.4	59.3	52.9	61.5	86.6	64.2	69.1
October	69.7	60.5	53.9	60.6	85.5	61.7	70.8
November	51.2	48.4	50.7	53.5	82.2	64.3	69.2
December	54.2	45.1	48.9	45.4	79.3	65.7	63.7

1934

January	63.7	50.0	48.8	53.7	80.4	65.4	59.0
February	72.2	55.7	53.1	61.8	85.2	68.6	64.8
March	75.1	58.5	53.5	64.2	85.6	71.5	68.5
April	66.5	59.0	55.7	66.0	90.1	74.0	71.0
May	63.4	52.8	58.0	58.8	84.8	73.2	71.1
June	48.1	47.8	49.9	53.1	77.5	70.9	67.5
July	50.4	50.7	51.3	48.9	79.4	69.7	61.1
August	46.4	47.1	53.3	51.6	72.5	71.2	59.6
September	36.3	29.0	49.1	11.7	74.8	70.9	55.0
October	51.0	41.9	44.9	48.9	81.9	69.2	50.4
November	62.0	42.0	41.4	42.7	81.6	66.9	55.4
December	87.4	46.6	46.6	54.1	85.0	74.0	62.3

Wholesale and Retail Trade.—In November, 1929, the Division first undertook the collection of monthly pay roll data from wholesale and retail trade establishments. The survey has since been greatly extended in scope, and in December, 1934, 2,006 reports were received covering 5,342 establishments in which 99,848 wage-earners were employed. In all classes of trade combined the number of wage-earners covered constituted approximately 55 per cent of the total number employed in all wholesale and retail outlets in the State. In wholesale trade the representation was 45 per cent, and in retail trade it was 60 per cent.

The results of the monthly survey are made public in monthly press notices, showing the number of reports received, the number of stores reported for, the number of wage-earners employed, and the amount distributed in wages for each of ten principal trade groups, with a further classification by wholesale, retail, and

Table 8.—Index Numbers of Employment in Wholesale and Retail Trade—All Trade Groups, Combined, and Each of Eleven Leading Groups:

By Months, 1933 and 1934

(Base—September, 1931 = 100)

YEARS AND MONTHS	ALL TRADE GROUPS			Automobiles, Accessories.	Candy, Gas and Oil Retail	Soda, and Drugs Retail	DEPARTMENT AND DRY GOODS STORES	
	Wholesale Trade	Retail Trade	Combined				"Chain"	Independ- ently Owned
<i>1933</i>								
January	79.7	86.8	85.4	73.0	88.8	84.8	85.1	
February	78.9	85.2	84.0	72.6	90.0	79.5	84.2	
March	77.5	82.6	81.6	71.4	84.1	77.0	78.9	
April	77.3	87.1	85.1	73.0	88.8	88.9	87.9	
May	78.2	85.9	84.2	75.7	87.7	86.4	87.1	
June	79.2	87.1	85.4	77.4	86.7	90.1	87.5	
July	80.2	84.4	83.4	76.4	87.6	78.7	82.2	
August	83.6	87.0	86.2	79.2	86.7	82.2	82.5	
September	86.1	93.4	91.8	81.6	87.9	95.8	95.7	
October	87.0	96.3	94.3	82.0	91.9	103.3	98.3	
November	86.6	97.7	95.4	82.9	92.2	108.4	100.6	
December	85.3	107.7	103.0	82.7	97.9	136.3	122.3	
<i>1934</i>								
January	84.5	92.8	91.1	82.4	90.9	90.4	90.7	
February	84.7	92.7	91.1	85.0	90.6	91.1	90.5	
March	84.8	93.5	91.8	85.3	92.3	96.2	90.2	
April	83.6	94.3	92.3	89.7	93.7	95.3	93.5	
May	83.9	95.1	92.9	91.8	95.3	99.9	93.7	
June	84.8	95.2	93.2	90.9	94.1	98.7	92.3	
July	86.0	91.0	90.1	89.2	91.3	92.1	85.0	
August	84.8	89.2	88.4	87.6	96.7	93.8	82.9	
September	85.6	93.0	91.6	86.9	95.5	97.4	92.4	
October	85.0	93.0	91.5	86.3	95.4	99.7	91.8	
November	84.2	89.5	88.9	87.0	98.1	107.8	96.4	
December	83.6	101.3	98.1	86.7	102.8	145.3	127.0	
<i>GROCERIES, PROVISIONS, MEATS AND FISH</i>								
<i>LUNCH ROOMS AND RESTAURANTS</i>								
YEARS AND MONTHS	Fuel and Ice Retail	Wholesale	Retail		"Chain" Stores	Independ- ently Owned	"Chain" Stores	Independ- ently Owned
			"Chain" Stores	Independ- ently Owned				
<i>1933</i>								
January	112.6	82.4	91.3	92.2	95.7	82.9	86.3	
February	115.1	81.9	90.9	92.8	96.0	81.9	81.6	
March	115.2	81.2	88.0	91.4	95.2	79.0	79.7	
April	101.8	81.8	87.3	92.2	94.7	79.7	92.1	
May	87.2	82.0	86.9	91.9	93.2	79.9	89.0	
June	86.4	81.2	88.7	91.8	94.1	77.3	91.4	
July	92.4	81.7	89.8	90.8	93.6	75.5	87.3	
August	95.4	86.0	101.2	96.8	95.0	78.1	82.7	
September	96.2	88.0	100.2	97.7	101.8	82.4	93.3	
October	102.5	89.1	100.1	100.0	104.1	82.8	98.7	
November	105.8	87.3	100.1	100.8	107.3	81.8	99.9	
December	114.9	87.0	101.1	96.5	109.0	80.3	114.6	
<i>1934</i>								
January	128.6	84.4	99.1	96.5	107.9	80.6	92.0	
February	135.0	83.2	98.4	97.1	106.8	78.9	89.8	
March	119.7	85.5	98.8	98.8	107.5	79.3	93.9	
April	96.4	85.2	96.9	98.3	108.5	82.6	100.9	
May	93.3	86.2	96.5	99.0	108.0	82.0	101.1	
June	99.1	87.1	98.0	98.5	107.1	84.0	101.4	
July	103.3	90.7	100.5	93.1	105.2	79.3	88.8	
August	92.7	88.9	97.9	91.1	103.6	77.4	85.5	
September	102.5	89.3	97.2	93.5	104.8	79.6	92.4	
October	97.2	86.9	96.0	94.2	106.5	80.9	93.1	
November	98.1	86.2	97.8	95.5	109.2	80.3	101.6	
December	109.6	85.2	100.8	95.1	111.4	80.2	114.3	
								Wearing Apparel and Acces- sories Retail

Table 9.—Index Numbers of Total Amount Paid in Wages in Wholesale and Retail Trade—All Trade Groups, Combined, and Each of Eleven Leading Groups: By Months, 1933 and 1934

(Base—September, 1931 = 100)

YEARS AND MONTHS	ALL TRADE GROUPS			Automobiles, Accessories, Gas and Oil Retail	Candy Soda, and Drugs Retail	DEPARTMENT AND DRY GOODS STORES	
	Wholesale Trade	Retail Trade	Combined			"Chain"	Independ- ently Owned
<i>1933</i>							
January	71.0	78.8	74.9	59.6	78.2	69.0	78.1
February	69.7	76.5	73.0	59.3	79.3	66.6	74.9
March	67.6	72.3	69.4	56.8	70.3	62.1	65.5
April	67.9	76.5	72.6	59.8	77.3	73.2	75.3
May	68.7	75.7	72.2	61.8	71.0	71.4	75.1
June	69.7	76.7	73.1	62.4	68.9	75.6	76.1
July	71.2	76.1	73.0	61.3	69.0	66.8	74.7
August	72.9	78.6	75.3	62.4	70.2	70.9	77.6
September	75.2	84.2	79.9	64.5	73.3	84.2	90.9
October	75.7	85.6	81.0	63.7	75.6	88.7	91.8
November	75.0	86.9	81.7	65.2	77.3	87.3	92.6
December	74.4	93.1	86.0	64.2	81.0	106.9	110.1
<i>1934</i>							
January	73.7	84.1	79.3	63.9	75.9	75.7	85.9
February	74.1	84.8	79.9	66.8	76.0	76.2	84.6
March	74.2	84.6	79.7	67.5	76.5	76.8	84.8
April	74.3	84.8	79.9	71.6	76.3	77.0	86.9
May	75.1	85.6	80.7	73.7	76.7	80.4	87.4
June	75.5	86.5	81.4	73.8	75.5	80.2	87.3
July	77.2	84.2	80.3	71.3	74.1	80.4	81.7
August	75.0	82.1	78.2	69.9	77.1	80.8	78.5
September	76.4	85.1	80.6	69.1	76.9	80.2	88.2
October	76.3	85.7	81.0	68.9	78.6	81.2	90.7
November	74.6	85.1	81.0	68.7	80.3	84.8	89.8
December	75.2	95.0	88.2	70.2	85.4	114.4	111.5
GROCERIES, PROVISIONS, MEATS AND FISH				LUNCH ROOMS AND RESTAURANTS			
YEARS AND MONTHS	Fuel and Ice Retail	Wholesale	Retail		"Chain" Stores	Independ- ently Owned	Wearing Apparel and Acces- sories Retail
			"Chain"	Independ- ently Owned			
<i>1933</i>							
January	98.8	75.8	83.0	83.7	85.3	71.9	74.5
February	107.4	75.3	83.0	82.8	84.6	69.2	65.5
March	101.7	73.7	81.8	80.4	84.1	66.0	62.7
April	83.3	74.9	82.0	80.1	83.8	67.1	73.6
May	67.5	74.7	81.7	79.3	82.5	67.8	74.6
June	65.1	74.8	83.3	79.4	82.4	66.0	76.8
July	76.8	75.8	85.0	79.3	81.6	64.0	73.8
August	74.3	77.6	92.9	83.5	83.2	66.0	72.0
September	78.5	79.8	92.8	85.3	88.4	72.9	78.8
October	81.3	80.7	93.2	86.6	89.4	71.7	83.1
November	90.1	78.9	94.1	86.7	90.4	70.3	85.3
December	100.2	78.6	95.3	84.5	91.2	69.9	93.3
<i>1934</i>							
January	105.8	77.1	91.9	84.2	90.7	69.5	80.7
February	125.1	76.4	91.9	84.8	89.6	68.1	78.1
March	105.7	79.2	92.5	85.6	90.4	67.8	80.6
April	78.5	80.1	92.0	85.0	89.9	71.1	85.8
May	75.3	81.5	92.6	86.6	89.7	71.3	85.4
June	81.2	81.2	94.1	85.9	89.3	72.9	86.9
July	82.7	85.1	94.8	84.5	86.8	69.5	80.6
August	75.8	81.2	93.8	83.2	85.6	67.5	76.4
September	84.1	82.5	92.8	84.9	87.1	68.0	82.4
October	78.2	81.8	92.1	85.8	89.1	69.8	84.4
November	76.2	79.4	93.9	86.7	91.1	69.4	86.1
December	96.4	79.6	96.4	86.5	93.5	69.3	98.4

chain stores, where such classification is applicable. Data are also presented for 11 cities which are important trading centers. For several groups of "chain" stores a separate tabulation of the returns by cities is not possible, but the omission of these returns from the tabulation by cities does not greatly impair the comparability of the results.

Information in detail is not presented in this report, but two series of index numbers and two groups of charts showing the trends of employment and amount of wages paid for the principal trade groups by months in 1933 and 1934 are here included. Because of unavoidable changes which occur in the list of reporting establishments the index numbers have been computed by the "link-relative" method, and in order that they may be directly comparable with index numbers

for other classes of employment which were added to the monthly surveys in 1931, the returns for the month of September, 1931, have been taken as the base (100) in computing the index numbers.

A comparison of the index numbers of employment in Table 8 shows that during the year 1934 employment in the various branches of retail trade, considered as a single group, continued to be maintained at a generally higher level than employment in wholesale trade.

In wholesale trade employment showed little change during the entire period from August, 1933, to December, 1934, and the average for the year 1934 was somewhat above the average for the year 1933.

More marked fluctuations occurred in employment in retail trade than in wholesale trade, largely because of seasonal conditions affecting retail sales, especially by department, dry goods, and wearing apparel stores. Employment in all retail trade groups combined remained about the same during the entire period, September, 1933, through December, 1934, except that in December in each year there were increases due to Christmas sales. In both wholesale trade and retail trade the index number for each of the last four months in 1934 was lower than the index number for the corresponding month in 1933.

In the 11 principal trade groups the principal increases in employment occurred in the "chain" lunchrooms and restaurants, but there was little change in the independently owned lunchrooms and restaurants during the two years.

There was also a greater improvement in employment in the "chain" department and dry goods stores than in the independently owned stores, and in the "chain" groceries, provisions, meat, and fish retail stores than in the independently owned stores.

Marked fluctuations in the index numbers of employment in the retail sale of fuel and ice were due to seasonal demand for fuel during the fall and the winter, and for ice during the summer season. Employment in the retail sale of "automobiles, accessories, gas and oil" showed little seasonal change. Employment in the wearing apparel and accessories stores showed marked increases during the Easter and Christmas seasons.

Index number representing the amount of wages paid to employees in the various trade groups are presented in Table 9. In general, the fluctuations in the amount of wages paid in the principal trade groups corresponded closely with the fluctuations in the number of persons employed from month to month, except that when the regular force of employees was supplemented with additional employees for temporary sales, the increases in the amounts of wages paid were not proportionately as large as the increases in the numbers of persons employed, because salespeople employed temporarily usually work part time and do not receive as high rates of pay as those who are permanently employed.

Building Construction.—The collection of monthly pay roll data from building contractors was first undertaken by this Division in April, 1927. The information called for includes the following items: number of building tradesmen employed during the week including the 15th of the month; total number of hours worked; and the amount paid in wages. Reports were received each month in 1934 from about 700 building contractors who employed in October, the peak month, nearly 5,600 building tradesmen, or approximately 25 per cent of the total number of building tradesmen employed in the State. Nearly all of the important general contractors and sub-contractors in the building industry are included in the list of those reporting each month. Pay roll data are furnished by individual projects, or groups of projects within a single city or town, and the returns are presented in the monthly press announcements by classes of work done and also by principal cities and towns. The amount of building construction in the several municipalities varies greatly from month to month, even though the totals for the State may not show any marked changes.

In order that the thousands of building tradesmen may find even fairly steady employment it is quite necessary that there be large individual projects which require many workmen for a period of weeks or months. Construction of this character was slightly greater in 1934 than in 1933, as shown by the fact that of

the total building about one-third consisted of the new non-residential type (institutional buildings, public and private schools, stores, restaurants, and other mercantile buildings, and public works and utilities). The value represented by additions, alterations, and repairs constituted a little more than one-third of the total, but the projects in this class were generally small and required few tradesmen. Residential construction was almost altogether in the nature of single dwellings, which are often built by the contractors, with only occasional help.

Although the employment and earnings of building tradesmen in 1934 were slightly greater than in 1933, yet many building tradesmen were employed only intermittently in 1934. The records show that less than one-third of the building tradesmen in Massachusetts for whom employment is ordinarily available were employed in 1934.

The data are tabulated so as to show by types of work the number of man-hours worked and the earnings of those employed. Index numbers, computed by the "link-relative" method and showing the trends of employment, man-hours worked, amount paid in wages, and other items for each month in 1933 and 1934, are presented in Table 10. The index numbers for prior years, beginning with April, 1927, have already been published and are not included in this table. A chart showing the trends of employment, total wages paid, and man-hours worked in the building construction industry, by months, during the period April, 1927 — December, 1934, appears in the appendix (Plate 12).

Table 10.—Index Numbers of Employment and Earnings of Building Tradesmen in Massachusetts as Reported by Building Contractors¹

MONTHS	(Average for year 1928 = 100)					
	Number of Tradesmen	Number of Man-hours	Amount Paid in Wages	Average Weekly Hours per Man	Average Weekly Earnings per Man	Average Hourly Earnings per Man
<i>1933</i>						
January	23.9	16.9	14.7	70.7	61.5	87.0
February	21.5	14.8	12.7	68.8	59.1	85.8
March	21.2	14.7	12.1	69.3	57.1	82.3
April	23.6	15.8	12.9	66.9	54.7	81.6
May	29.3	23.4	18.1	79.9	61.8	77.4
June	29.9	23.5	18.1	78.6	60.1	77.0
July	29.8	24.3	18.2	81.5	61.1	74.9
August	31.5	24.6	19.1	78.1	60.6	77.6
September	31.6	24.9	19.8	78.8	62.7	79.5
October	33.3	25.1	19.5	75.4	58.6	77.7
November	31.4	23.6	17.9	75.2	57.0	75.8
December	27.3	20.4	15.6	74.7	57.1	76.5
<i>1934</i>						
January	24.0	18.5	14.6	77.1	60.8	78.9
February	23.1	17.7	14.2	76.6	61.5	80.2
March	26.0	20.0	16.0	76.9	61.5	80.0
April	29.8	23.4	18.6	78.5	62.4	79.5
May	33.0	27.5	21.2	83.3	64.2	77.1
June	33.0	28.0	21.7	84.8	65.8	77.5
July	33.3	28.3	22.5	85.8	68.2	79.5
August	33.1	26.8	21.6	80.5	64.9	80.6
September	35.8	28.4	22.8	79.3	63.7	80.3
October	36.8	28.5	23.0	77.4	62.5	80.7
November	36.1	28.0	22.4	77.6	62.0	80.0
December	32.4	24.8	20.5	76.5	63.3	82.7

¹ This survey was first undertaken in April, 1927.

Highway Construction. — In 1931, the monthly surveys were extended to include highway construction. In 1934, reports were received each month from about 95 contractors who employed during the peak month about 1,800 workmen. The reports received cover approximately 90 per cent of the total number of workmen employed on all highway construction done under contract in Massachusetts during the year, exclusive of those projects paid for from federal funds.

Owing to changes which have been made in the questionnaire used, the returns for 1934 are not directly comparable with those for earlier years, and accordingly no index numbers for highway construction are here presented. The trends, however, show the usual seasonal fluctuations, and June, July and October were the months in which the largest numbers of highway workmen were employed, and about four times as many were employed during those months as in February and March when highway construction was at its lowest point.

Public Utilities. — The monthly survey of employment by public utility companies was first undertaken in January, 1929. During the past three years the lists of companies reporting have been nearly identical, and changes were principally in the nature of mergers or consolidations which reduced the number of companies without changing the coverage. All employees, both manual and clerical (except salaried executives) on the pay rolls of the companies in Massachusetts are included in the reports.

In December, 1934, reports were received from 127 companies which together employed a total of 45,993 wage-earners. These 127 companies comprised six steam railroads, 10 street and electric railways; 29 passenger bus companies, and 82 gas and electric companies. Three of the six steam railroads are engaged in interstate transportation, and each of these three furnishes pay roll data covering its operations within Massachusetts only.

Certain of the street and electric railways which no longer operate street cars are now included under the passenger bus group. Many of the street railways now operate both street cars and busses, but it is not possible to make a further segregation of the pay rolls on this basis.

Two series of index numbers are presented in Table 11, one of which relates to employment and the other to total amounts paid in wages to employees in each of the four classes of public utility companies. The trends of employment during the five years 1930-1934, inclusive, by each of these four classes of utilities are shown, graphically, in the chart which appears on page 118 of this report.

According to the index numbers representing employment in all four classes of public utilities combined there was a slight gain in 1934 in the average number employed when compared with 1933. The changes from month to month were relatively small.

The principal increases in employment in 1934 occurred in the passenger bus company group, and employment each month in 1934 exceeded that in the corresponding month in 1933. The index number for the year 1934 was 118.7 as compared with 101.2 for 1933. The records show that there were seasonal increases in business during the summer months in each year.

During the year 1934, employees in all four classes of public utilities, and more particularly in the steam railroad group, benefited by full or partial wage restorations. Had full time employment been prevalent, the effect of the restorations would have been much more pronounced.

Table 11.—Index Numbers of Employment of Wage-earners and of Amount Paid in Wages by Public Utility Companies in Massachusetts: 1933 and 1934

(Average for Year 1930 = 100)

YEARS AND MONTHS	All Classes Combined	Steam Railroads	Street and Electric Railways	Passenger Bus Companies	Gas and Electric Companies
<i>1933</i>					
January	78.2	72.2	82.9	93.5	85.2
February	78.6	73.0	83.3	93.0	84.9
March	76.9	70.4	82.0	91.5	84.7
April	76.5	69.8	81.6	95.4	84.4
May	76.2	69.7	80.9	98.1	83.7
June	76.5	70.1	80.8	101.7	83.7
July	77.0	70.9	80.7	104.9	84.0
August	77.5	71.6	80.6	107.5	84.2
September	78.7	73.0	80.8	107.8	85.9
October	79.0	73.1	80.4	106.9	87.3
November	78.5	71.9	80.6	107.5	87.5
December	78.1	71.7	79.6	106.8	87.4
<i>1934</i>					
January	78.1	71.9	79.1	109.2	87.0
February	79.2	73.8	79.0	111.1	87.4
March	80.5	74.7	80.9	118.6	88.2
April	80.6	75.6	80.0	118.5	87.4
May	81.0	75.7	80.1	120.0	88.4
June	81.7	76.5	80.4	123.5	89.0
July	82.7	78.2	80.5	123.1	89.6
August	80.6	73.7	81.2	125.7	89.3
September	80.3	73.1	80.8	124.2	89.8
October	80.1	72.3	82.3	118.0	90.1
November	79.5	71.6	82.0	116.2	89.5
December	79.5	73.0	79.2	114.5	89.2

YEARS AND MONTHS	All Classes Combined	Steam Railroads	Street and Electric Railways	Passenger Bus Companies	Gas and Electric Companies
1933					
January	66.3	58.9	70.4	79.7	74.8
February	68.2	61.9	72.9	80.7	74.1
March	64.7	56.4	70.0	76.4	73.7
April	64.4	55.4	69.3	83.0	74.4
May	64.0	55.7	68.9	83.7	72.5
June	64.9	57.1	68.1	85.8	73.8
July	65.8	59.0	68.0	88.6	73.7
August	66.0	59.4	67.9	92.2	73.7
September	67.7	62.2	68.2	90.3	75.0
October	67.5	61.3	68.8	87.4	75.6
November	66.5	58.8	69.3	87.1	75.9
December	67.5	60.6	69.5	86.2	76.2
1934					
January	67.5	60.4	69.4	87.7	76.4
February	70.4	63.4	70.1	89.3	81.2
March	72.8	67.8	72.6	92.5	79.6
April	70.0	63.9	70.2	93.1	78.0
May	70.5	64.2	69.5	95.4	79.8
June	71.0	63.3	71.5	96.9	81.4
July	72.3	66.1	70.4	100.0	81.9
August	70.3	61.8	71.3	100.4	81.2
September	70.5	62.2	71.0	99.1	81.8
October	69.7	60.6	71.5	93.5	81.6
November	69.0	59.3	71.9	93.3	81.0
December	70.9	63.1	70.6	92.9	82.2

Municipal Employment.—Reports relative to employment by municipalities in the Commonwealth have been collected each month, beginning with April, 1931. These reports cover mechanics, workmen, laborers, clerical, and other municipal employees who receive their pay weekly, in accordance with General Laws, Chapter 149, Section 148. Each city or town reporting furnishes information by Departments. In order to show the marked seasonal tendencies in connection with road and highway construction work by municipalities, the pay rolls for manual workers in the various departments coming under this general classification are tabulated separately from the pay rolls for workers in other departments. Pay roll data relative to police, fire, and school departments, and hospitals maintained from public funds are not included in this survey.

For more than two years reports have been received each month from nearly 100 municipalities in which reside over 80 per cent of the population of the State. In those towns from which no reports are obtained there is a comparatively small number of municipal employees, and their inclusion would not add sufficiently to the value of the survey to warrant their being canvassed each month.

Two series of index numbers are presented in Table 12, one of which relates to employment of municipal employees and the other to the total amount paid them in wages for one week in each month, beginning with September, 1931, the returns for which month have been taken as the base (100) in computing the index numbers. A chart based on the index numbers appears in the appendix (Plate 15).

On reference to the index numbers it will be noted that there were seasonal fluctuations in each of the two classes of manual workers, and these fluctuations were more evident in the group including the manual workers in other departments than the street highway and public works departments. The large increase in March, 1934, as compared with February, was due to the employment of special temporary workmen on snow and ice removal. On the whole, municipal employment in 1934 was about the same as in 1933.

Agriculture.—The number of persons employed in agriculture in Massachusetts constitutes only slightly over three per cent of the total number of persons gainfully employed in all industries in the State; nevertheless, an endeavor has been made to secure monthly reports from a representative list of employers of agricultural labor. It has not been possible to secure an adequate representation, because the number of farms, market gardens, dairies, etc., in connection with which three or more persons are employed, is very small, and it is not feasible to attempt to secure a large number of reports each month from one-man or two-man farms. A few persons, usually the members of the family on a farm, care for a large acreage, except during the planting and harvesting seasons, when some temporary help is employed. Quite frequently farmers in a district co-operate during the busy seasons, aiding each other when an emergency arises.

Table 12.—Index Numbers of Employment and of Amount Paid in Wages in Municipalities: By Specified Classes of Employment, 1933 and 1934

YEARS AND MONTHS	MANUAL WORKERS				Clerical and Other Employees Paid Weekly	Total — All Classes Specified
	Street, Highway, and Public Works Departments	Other Departments	Total, All Departments			
Employment						
<i>1933</i>						
January	60.3	95.3	72.3	99.2	76.2	
February	85.4	100.5	90.7	99.3	91.8	
March	56.6	82.7	65.6	99.3	70.5	
April	64.2	84.4	71.2	103.4	75.9	
May	64.7	94.8	75.0	104.2	79.3	
June	67.0	98.9	77.9	105.2	81.8	
July	70.0	96.9	79.2	110.2	83.7	
August	70.9	98.2	80.2	108.9	84.4	
September	72.6	98.2	81.4	107.3	85.1	
October	73.8	95.1	81.2	106.6	84.8	
November	74.2	98.4	82.5	105.1	85.7	
December	69.6	84.8	74.8	104.0	79.0	
<i>1934</i>						
January	62.0	78.4	67.6	105.6	73.1	
February	69.4	80.5	73.2	106.1	77.9	
March	78.6	78.7	78.5	105.4	82.3	
April	62.8	81.7	69.3	108.7	74.9	
May	66.9	89.4	74.7	106.0	79.1	
June	68.9	86.1	74.7	107.1	79.3	
July	73.7	92.1	79.9	110.0	84.2	
August	77.0	95.5	83.2	109.2	86.9	
September	76.7	93.6	82.3	106.7	85.8	
October	76.7	91.2	81.4	111.2	85.7	
November	71.3	93.5	79.0	109.4	83.3	
December	64.6	86.8	72.4	113.7	78.2	
Amount Paid in Wages						
<i>1933</i>						
January	56.7	77.6	63.8	99.8	69.2	
February	67.8	76.0	70.4	100.0	74.9	
March	51.2	70.4	57.7	99.7	63.9	
April	54.5	71.6	60.2	103.0	66.5	
May	53.8	76.3	61.4	99.3	67.0	
June	54.9	80.2	63.5	98.1	68.7	
July	58.0	79.2	65.1	100.8	70.5	
August	58.1	82.5	66.3	101.2	71.6	
September	58.4	78.1	65.5	99.9	70.7	
October	59.7	75.9	65.6	99.3	70.7	
November	60.5	77.5	66.7	97.8	71.5	
December	58.9	73.1	64.1	97.6	69.2	
<i>1934</i>						
January	56.4	69.9	61.4	99.4	67.1	
February	57.2	71.5	62.5	101.6	68.3	
March	61.5	69.6	64.5	100.9	69.9	
April	53.8	69.7	59.6	102.5	65.9	
May	56.4	74.6	63.1	100.5	68.7	
June	58.6	75.9	65.0	102.6	70.6	
July	60.9	81.4	68.5	104.7	73.9	
August	61.4	82.3	69.1	103.4	74.3	
September	60.8	80.5	68.0	101.5	73.1	
October	64.0	77.0	68.6	105.6	74.2	
November	59.2	76.0	65.3	103.4	71.0	
December	57.3	74.2	63.4	107.9	70.0	

The list of reporting agencies includes 100 employers of agricultural labor, consisting of 20 farms and market gardens, 32 dairies and stock farms, 34 nurseries, wholesale florists, and landscape gardeners, seven fruit growers, six cranberry growers, and one leaf-tobacco grower.

The several classes of agricultural employment vary greatly. On the farms and in market gardens the largest number of workers are employed during the three summer months, with a somewhat greater number in July than in June or August. In the dairies and on the stock farms the largest numbers are employed in July and August and there is a fairly steady increase in the spring followed by a decrease in the fall. The nurserymen, wholesale florists, and landscape gardeners employ the largest number of workmen in April, May and June. After June the number employed is considerably less, but a fairly large force is retained through October. In fruit growing the harvesting of the crop always requires the greatest number

of workers, although the number employed is fairly large throughout the balance of the year with the exception of the winter months. The cranberry industry is very seasonal, and beginning in April and continuing through July, the number employed preparing the bogs is gradually increased. A great many of these workers are released in August, but during the harvesting season (September and October) the forces are greatly increased and the maximum numbers are employed during these months. The number employed is reduced by about one-half in November, and those who are retained are employed in sorting and packing, etc., in the various canneries, which work is usually completed by December, when the employees are dismissed.

Office and Miscellaneous Classes of Employment.—In order that the monthly surveys might be more fully representative of all important classes of employment in the State, a number of somewhat unrelated classes, not previously canvassed, were added to the list in 1931. In December, 1934, returns were received from 665 employers, representing 847 companies or establishments in which 35,144 wage-earners were employed. Under this general heading the returns have been classified under six major groups, and each of these groups includes two distinct classes of employment. Index numbers for each of the 12 classifications have been computed using the data for September, 1931, as the base (100).

In the group "Amusement and recreation" are included clubs and associations, and theatres. In 1932 there was a decline of about 10 per cent in employment in clubs and associations; in 1933 there was little change except for seasonal requirements, and in 1934 employment was somewhat similar to 1933 except for a decided decrease in July followed by a gain in October and November. In theatres the number of wage-earners employed at the present time is about 50 per cent below the number employed in 1931. Employment in 1932 decreased to a marked degree because of the closing of several theatres, the complete equipping of others with sound apparatus, and "changes in policy" which resulted in dismissal of large numbers of stage employees, musicians, and others. Since 1932 there have been further closings of theatres, some of which were re-opened during the theatrical season beginning in the fall of 1933, but the usual summer closings brought the number employed to the lowest level during the period under discussion. In the fall of 1934, certain of the theatres reopened and employment increased to a considerable extent.

When the survey of hotels was first undertaken, the returns included all hotel employees as one group, and those employed in the hotel restaurants were not separately classified. Beginning in January, 1932, the hotels which operated restaurants were requested to report for the two classes of hotel employees, separately, and index numbers are here presented for each of these classes. Through 1932 and 1933 there was a general decrease in employment in each class of hotel employees, but towards the close of 1933, presumably as a result of the repeal of prohibition, there was a marked increase in employment in hotel restaurants. The index number representing employment in August, 1933, in the hotel restaurants was 72.6, and there was a gain each month thereafter until February, 1934, when the index number reached 99.4, and has since been maintained at or near this point, except for the usual seasonal decline in the summer months.

In the group "Institutional employment" are included hospitals, schools and colleges. The returns include the office staff and employees in the buildings and about the grounds, but do not include the teaching staff in the schools or the professional or semi-professional employees in the hospitals. There is little fluctuation in employment at any time in the hospitals, but in the schools and colleges, as a result of the closing of these institutions during the summer months, only a small force is retained. With the opening of the school year in the fall of 1934 the number of employees added was less than the numbers added in 1933 and 1932.

Under the heading of "Office employment," index numbers of employment are presented for banks and trust companies, and insurance companies and agencies. For a third group which includes a small number of miscellaneous companies no index numbers have been computed.

Employment in banks and trust companies varied little from month to month, or even over a period of a year. The number of wage-earners employed by insur-

ance companies and agencies in 1934 exceeded by about five per cent the number employed in 1933.

The group, "Personal services," includes dyers and cleansers, and laundries. The laundries were first canvassed in 1931, but the dyers and cleansers were not canvassed until March, 1932. The returns for dyeing and cleansing show very marked seasonal trends, with busy seasons in the spring and fall. Employment in laundries changes very little from month to month or from year to year.

Included under "Trucking and handling" are express and transfer companies which operate over stated routes and maintain regular services, and those companies which do teaming, trucking, and handling on a commercial basis. Express and transfer companies depend more upon the small shipments. Employment by such companies has undergone marked changes during the past three years, and the index number representing employment increased from about 80 in 1932 to 98 in 1933, and to 107 in 1934.

The teaming, trucking and handling companies included in the returns are those which do general commercial work, those handling the moving of bulk work, and stevedore companies. Employment in this group has shown no definite seasonal trends, and there has been little general improvement in employment during the past three years.

Table 13.—Index Numbers of Employment in Twelve Miscellaneous Classes of Employment: By Months, September, 1931—December, 1934

(Base—September, 1931 = 100)

YEARS AND MONTHS	AMUSEMENT AND RECREATION		HOTEL EMPLOYMENT		INSTITUTIONAL EMPLOYMENT	
	Clubs and Associations	Theatres	Hotels	Hotel Restaurants	Hospitals	Schools and Colleges
<i>1931</i>						
September	100.0	100.0	100.0	100.0	100.0	100.0
October	104.4	99.9	101.6	101.6	99.6	121.3
November	110.7	98.2	101.1	101.1	99.7	121.5
December	107.5	98.0	98.8	98.8	101.0	120.0
<i>1932</i>						
January	99.5	95.7	96.2	96.2	99.3	118.1
February	102.8	83.9	94.8	97.6	99.3	116.7
March	98.5	75.3	94.6	96.3	99.0	117.1
April	101.4	83.6	94.1	95.4	99.4	117.1
May	100.7	71.5	93.2	92.9	99.4	117.5
June	98.9	65.6	98.1	88.5	99.3	102.7
July	94.3	63.5	98.2	82.1	101.6	45.0
August	94.5	63.3	95.7	77.1	100.9	40.7
September	92.5	71.3	87.0	79.6	99.0	89.8
October	97.3	70.7	83.8	85.1	97.4	100.6
November	93.1	70.8	85.1	83.6	98.7	100.4
December	92.1	59.2	83.9	83.7	98.5	96.0
<i>1933</i>						
January	91.3	51.6	82.6	82.1	98.4	96.3
February	88.7	50.0	82.4	80.3	98.1	95.1
March	85.1	49.8	81.4	78.4	96.1	95.0
April	86.8	49.4	79.1	79.0	95.8	95.5
May	89.8	48.8	80.0	81.1	96.9	95.5
June	89.4	48.5	80.2	81.3	98.0	89.2
July	89.6	46.0	78.9	75.0	100.3	42.1
August	91.4	45.8	77.8	72.6	100.9	37.3
September	88.9	47.6	78.3	75.7	98.8	58.7
October	89.7	50.0	69.6	79.5	96.2	94.5
November	88.6	52.2	70.6	80.1	97.5	94.8
December	87.1	50.7	72.7	86.3	98.1	94.5
<i>1934</i>						
January	86.5	54.4	71.3	90.2	98.8	94.3
February	88.1	55.9	76.1	99.4	96.5	94.1
March	88.9	58.5	76.3	97.3	97.8	93.6
April	90.3	57.9	75.8	94.8	98.7	93.2
May	90.3	50.3	68.3	95.1	99.9	87.7
June	89.1	48.5	68.5	96.7	101.0	81.0
July	81.1	45.5	67.8	87.0	101.8	50.3
August	80.5	44.0	67.9	85.0	101.2	52.5
September	83.5	45.7	71.8	92.1	98.6	59.4
October	90.4	49.6	75.7	96.7	97.8	73.5
November	88.4	52.4	75.2	99.8	101.1	75.3
December	82.7	48.5	74.3	100.9	99.0	75.5

YEARS AND MONTHS	OFFICE EMPLOYMENT		PERSONAL SERVICES		TRUCKING AND HANDLING	
	Banks and Trust Companies	Insurance Companies and Agencies	Dyers and Cleansers	Laundries	Express and Transfer Companies	Teaming, Trucking and Handling
<i>1931</i>						
September	100.0	100.0	—	100.0	100.0	100.0
October	101.2	99.5	—	101.7	94.2	98.3
November	100.1	100.3	—	100.2	90.2	97.5
December	95.3	100.4	—	98.7	109.6	95.7
<i>1932</i>						
January	95.2	99.6	—	95.3	77.8	92.0
February	94.9	99.8	—	94.6	77.4	93.4
March	94.7	99.9	—	94.2	76.5	90.5
April	94.2	100.1	—	94.1	78.0	91.1
May	94.1	100.0	93.7 ¹	93.7	85.7	81.3
June	94.0	99.6	95.9	97.5	83.2	77.8
July	94.1	100.3	90.1	95.9	75.0	75.7
August	94.0	100.3	88.5	94.6	71.3	75.2
September	93.1	99.4	92.8	96.9	76.2	73.8
October	92.2	99.5	90.0	97.3	82.1	89.3
November	91.6	99.8	84.4	96.6	83.6	79.7
December	91.4	99.6	74.9	96.3	85.9	77.5
<i>1933</i>						
January	91.2	99.7	72.8	94.3	85.0	84.2
February	90.7	99.8	70.0	95.3	83.3	79.2
March	89.2	99.7	66.9	93.8	81.5	72.5
April	87.2	99.7	84.0	93.8	89.2	75.6
May	86.9	100.5	86.3	93.5	91.1	87.2
June	84.0	99.9	90.6	95.3	98.9	79.1
July	85.1	99.1	87.7	94.5	98.8	88.3
August	86.1	99.2	77.4	94.5	102.7	87.9
September	85.8	100.2	87.0	93.4	108.7	83.6
October	85.9	102.3	85.1	93.6	118.2	95.2
November	86.6	102.3	81.6	92.9	116.3	87.0
December	86.5	102.4	73.8	91.8	103.0	83.5
<i>1934</i>						
January	86.5	104.3	72.1	90.8	101.6	79.8
February	86.2	104.5	69.0	91.3	107.1	96.6
March	86.2	104.1	74.1	91.8	113.2	88.0
April	86.5	104.4	82.5	93.0	119.0	88.8
May	86.3	105.2	86.0	95.6	123.6	82.2
June	86.8	104.8	90.3	96.6	104.8	82.8
July	87.2	105.1	87.3	95.1	95.6	79.0
August	87.8	104.8	87.0	94.4	95.1	77.7
September	87.1	104.6	91.3	93.9	101.2	81.5
October	87.3	106.1	88.7	93.3	101.2	83.1
November	86.9	107.1	82.8	92.4	101.8	83.3
December	86.6	108.0	77.7	93.0	125.2	87.6

¹ No earlier data are available. For the purpose of computing a series of index numbers, the level of employment in May, 1932, was assumed to be as in laundries.

In Table 14 index numbers representing the amount paid in wages to employees in twelve miscellaneous classes of employment are presented by months for the period September, 1931, to December, 1934. September, 1931, has been taken as the base (100) in computing these index numbers. For wage-earners employed in hotel restaurants, hospitals and by insurance companies and agencies the index numbers for each month in 1934 either exceeded or fell only slightly below 100. Employees in clubs and associations, theatres, and schools and colleges suffered the largest reductions in amounts paid in wages.

Table 14.—Index Numbers of Amounts Paid in Wages in Twelve Miscellaneous Classes of Employment: By Months September, 1931—December, 1934
(Base—September, 1931 = 100)

YEARS AND MONTHS	AMUSEMENT AND RECREATION		HOTEL EMPLOYMENT		INSTITUTIONAL EMPLOYMENT	
	Clubs and Associations	Theatres	Hotels	Hotel Restaurants	Hospitals	Schools and Colleges
<i>1931</i>						
September	100.0	100.0	100.0	100.0	100.0	100.0
October	107.4	101.1	101.9	101.9	99.2	104.5
November	114.4	97.0	100.2	100.2	98.7	104.4
December	102.3	97.8	96.8	96.8	103.4	101.9
<i>1932</i>						
January	97.7	98.0	95.3	95.3	102.7	100.6
February	100.0	83.9	93.7	93.5	99.6	99.6
March	98.6	76.5	92.6	92.2	99.8	99.3
April	97.7	87.5	96.3	91.7	100.3	99.5
May	94.9	74.1	95.3	86.9	99.2	98.9
June	92.9	68.2	95.3	79.1	98.6	87.0
July	88.2	66.0	93.8	70.7	99.5	39.8
August	88.5	65.3	87.9	63.9	98.5	32.6
September	88.8	75.4	81.8	67.5	95.8	60.0
October	91.6	75.2	79.6	74.5	94.8	66.4
November	90.5	74.7	79.7	71.3	96.0	66.4
December	87.6	63.0	78.3	70.6	95.6	65.0
<i>1933</i>						
January	83.5	54.5	76.7	68.6	94.3	66.0
February	84.9	51.7	75.4	66.8	94.6	65.1
March	76.8	51.5	70.4	59.5	94.2	64.3
April	77.2	49.6	69.8	61.1	92.8	63.5
May	79.1	47.3	71.1	62.4	93.4	63.6
June	78.2	46.4	72.0	62.3	95.2	60.7
July	79.2	42.9	69.8	58.7	97.6	36.8
August	78.3	43.6	68.8	55.8	96.5	31.5
September	77.6	46.7	71.0	59.4	95.3	43.6
October	80.2	48.6	64.9	60.1	95.2	66.3
November	77.9	50.7	65.0	65.1	95.4	66.0
December	73.2	48.9	68.0	69.8	96.4	65.5
<i>1934</i>						
January	75.0	54.3	70.2	76.0	98.0	65.2
February	76.9	55.2	72.2	81.9	97.6	64.5
March	77.6	56.7	73.0	82.9	98.9	65.1
April	79.6	55.6	74.6	83.1	100.4	64.4
May	80.7	47.1	73.8	82.9	102.2	61.6
June	82.8	45.5	74.1	82.6	102.9	55.9
July	76.3	43.5	74.5	78.2	105.8	37.2
August	74.1	42.1	74.6	75.5	104.8	39.4
September	76.5	46.3	80.6	83.7	101.7	43.7
October	81.0	49.8	85.0	94.6	102.7	51.6
November	80.4	51.7	85.2	97.8	104.2	52.3
December	75.3	49.5	83.6	99.1	105.5	52.6

YEARS AND MONTHS	OFFICE EMPLOYMENT		PERSONAL SERVICES		TRUCKING AND HANDLING	
	Banks and Trust Companies	Insurance Companies and Agencies	Dyers and Cleansers	Laundries	Express and Transfer Companies	Teaming, Trucking and Handling
<i>1931</i>						
September	. .	100.0	100.0	—	100.0	100.0
October	. .	98.7	98.9	—	88.6	103.0
November	. .	99.5	98.5	—	87.4	95.9
December	. .	93.7	101.0	—	99.7	91.8
<i>1932</i>						
January	. .	92.0	99.1	—	92.6	86.3
February	. .	91.4	98.6	—	68.2	89.9
March	. .	91.0	99.8	—	65.9	87.6
April	. .	90.0	100.1	—	66.9	81.4
May	. .	89.6	99.7	88.0 ¹	73.1	75.5
June	. .	89.2	99.2	89.0	71.3	71.6
July	. .	89.9	99.6	80.2	63.3	72.9
August	. .	89.3	99.5	77.2	59.9	67.4
September	. .	88.6	99.7	80.8	67.4	69.4
October	. .	88.2	99.8	74.2	71.4	77.8
November	. .	87.5	99.7	66.7	73.2	73.6
December	. .	87.4	101.5	58.5	76.3	68.9
<i>1933</i>						
January	. .	86.2	101.1	56.5	72.4	73.6
February	. .	85.5	101.1	51.6	71.8	68.7
March	. .	84.2	101.7	46.9	65.8	64.6
April	. .	81.8	99.5	68.3	72.2	67.1
May	. .	81.1	103.1	70.9	75.1	74.9
June	. .	78.7	103.2	76.1	81.4	75.4
July	. .	78.9	104.3	71.2	82.2	84.7
August	. .	79.3	103.8	65.9	85.0	82.4
September	. .	79.3	102.5	80.7	80.9	81.3
October	. .	79.5	103.7	73.4	79.8	93.0
November	. .	80.1	103.1	74.1	79.5	88.9
December	. .	80.2	104.1	59.1	78.9	83.2
<i>1934</i>						
January	. .	80.4	105.0	62.3	78.7	82.1
February	. .	80.3	102.7	61.0	78.9	85.3
March	. .	80.8	105.9	71.5	78.9	86.4
April	. .	80.9	109.9	83.4	81.8	88.7
May	. .	81.3	107.2	87.3	83.6	94.6
June	. .	81.6	105.6	91.7	84.8	82.9
July	. .	81.2	108.1	86.4	84.8	82.7
August	. .	81.4	107.8	84.5	82.9	81.6
September	. .	80.8	106.9	87.9	82.0	81.8
October	. .	80.9	106.9	83.2	81.1	84.0
November	. .	80.9	107.1	75.8	79.4	88.0
December	. .	81.0	109.6	71.2	78.8	88.6
					80.0	100.8
						95.2

¹ No earlier data are available. For the purpose of computing a series of index numbers, the level of employment in May, 1932, was assumed to be the same as for laundries.

Building Statistics.—The collection of records of building permits granted in municipalities in Massachusetts was first undertaken in 1919, and quarterly reports were then received from 36 cities. The number of municipalities reporting has since been increased to 55 (including all of the 39 cities and 16 of the larger towns). During a period of eight years, 1927-1934, monthly reports have been received from each of these 55 municipalities, and it is estimated that the reports cover approximately 90 per cent of the building operations in the State, exclusive of State and Federal buildings, permits for which are not included in the records of most municipalities.

The questionnaire used calls for the number of applications filed for permits to build; the value represented thereby, classified by type of structure and intended use; and the number of family accommodations to be provided, classified by type of residence. Mimeographed summaries of the returns are issued each month, immediately following the month to which the statistics relate. The respective totals for each of the cities are shown in the summaries. A special summary is also presented, showing the progress by months of the building program during the year then current, with totals for each class during the preceding year.

The number and estimated cost of prospective building in the 55 municipalities for each of the eight years, 1927-1934 inclusive, are presented in Table 15. In the 55 municipalities in 1934, 24.9 per cent of the estimated value was represented by new residential; 34.9 per cent by new non-residential building; and 40.2 per cent by additions, alterations and repairs; the respective percentages in 1933 were 38.0,

22.6 and 39.4. The total number of buildings for all classes of projects in 1934 was less by 0.3 per cent than in 1933, but the value was greater by 18.7 per cent. For each of the three classes of projects, the respective changes in number and value were: new residential building, number, - 26.4 per cent, and value, - 22.2 per cent; new non-residential building, - 9.3 per cent and + 83.6 per cent; and additions, alterations and repairs, + 5.6 per cent and + 21.1 per cent. Although the value of new residential construction showed a decline in 1934, the value of new non-residential building in that year was nearly double that of the preceding year, and there was also somewhat more repair work.

Table 15.—Number and Estimated Cost of Building in 55 Municipalities in Massachusetts, 1927-1934: By Classes of Projects¹

YEARS	New Residential Building	New Non-residential Building	Additions, Alterations, and Repairs	Totals—All Classes of Projects
Number of Buildings				
1934	1,314	3,800	14,254	19,368
1933	1,786	4,188	13,495	19,469
1932	1,806	5,134	14,115	21,055
1931	4,587	8,392	16,210	29,189
1930	4,931	9,615	16,417	30,963
1929	6,759	12,039	17,607	36,405
1928	10,580	12,967	17,184	40,731
1927	11,418	14,231	18,666	44,315
Estimated Cost				
1934	\$7,399,030	\$10,367,863	\$11,937,370	\$29,704,263
1933	9,513,475	5,646,159	9,859,614	25,019,248
1932	9,797,266	11,800,136	10,771,930	32,369,332
1931	32,956,935	38,495,601	14,240,473	85,693,009
1930	40,146,313	45,173,157	22,033,838	107,353,308
1929	69,936,017	53,945,280	29,774,203	153,655,500
1928	96,878,609	52,047,563	22,122,372	171,048,544
1927	101,959,226	51,765,595	27,574,615	181,299,436

¹ Annual summaries of the data in detail for the individual municipalities have been issued in mimeographed form.

Comparisons with the years prior to 1934 show very clearly the decline in recent years in the construction industry in Massachusetts, particularly new construction. For example the number of new residential buildings planned in 1934 was 1,314 as compared with 11,418 in 1927; the corresponding values were \$7,399,030 and \$101,959,226. The number of new non-residential buildings was 3,800 in 1934 and 14,231 in 1927; the corresponding values were \$10,367,863 and \$51,765,595.

A comparison of the building programs in each of 12 municipalities, in which the value of work planned exceeded \$500,000 in 1934, illustrates the wide variation in building activity in the different municipalities.

	Residential	Non-residential	Additions, Alterations and Repairs	Total
Belmont	\$478,315	\$224,960	\$57,625	\$760,900
Boston	659,700	3,403,324	4,440,414	8,503,438
Brookline	774,500	19,950	161,501	955,951
Cambridge	32,800	126,065	430,131	588,996
Lawrence	19,100	368,833	191,620	579,553
Milton	433,285	329,191	107,494	869,969
Newton	1,179,900	531,160	515,690	2,226,750
Northampton	8,250	380,360	192,229	580,839
Salem	66,200	112,510	559,831	738,541
Springfield	44,225	226,030	708,773	979,028
Wellesley	749,300	973,200	59,460	1,781,960
Worcester	530,345	356,127	406,712	1,293,184

Considering first the residential data, it will be observed that the estimated cost varied in these 12 leading cities from as little as \$8,250 in Northampton to \$1,179,900 in Newton. Next in importance to Newton was Brookline, with \$774,500, followed by Wellesley with \$749,300, and Boston with \$659,700. That new residential construction did not play as important a part in the building program in 1934 as in 1933 is indicated by the fact that, of the 12 cities specified, the value of this class of work was relatively greatest in Brookline, constituting 81.0 per cent of the total value in that city. In Newton and Wellesley the proportions

were not nearly as large because of important individual non-residential and alteration projects.

Similar wide variations were noted in non-residential construction, from \$19,950 in Brookline to \$3,403,324 in Boston, which city had more than three times the value in this class of work than was represented by Wellesley with \$973,200. Of the total in Wellesley, \$860,000 was for two educational buildings.

Additions, alterations, and repairs in these 12 leading cities ranged between \$59,460 in Wellesley and \$4,440,414 in Boston, constituting in Boston more than half of the total value of all work planned and covering 4,797 projects, which averaged less than \$1,000 per project.

Table 16.—Summary of Prospective Building in 55 Municipalities in Massachusetts during the Year 1934: By Classes of Structures

1 — New Residential Buildings		Number of Buildings	Estimated Cost	Number of Family Accommodations
CLASSES OF STRUCTURES				
Housekeeping dwellings:				
One-family	.	1,287	\$7,233,930	1,287
Two-family	.	20	123,600	40
Multi-family (three or more families)	.	3	23,000	12
Dwellings and stores combined	.	4	18,500	4
Non-housekeeping dwellings	.	—	—	—
<i>Total — New residential buildings</i>	.	<u>1,314</u>	<u>\$7,399,030</u>	<u>1,343</u>
2 — New Non-residential Buildings, and Additions, Alterations, and Repairs				
CLASSES OF STRUCTURES		Number of Buildings	Estimated Cost	Rank on Basis of Cost
New non-residential buildings:				
Amusement and recreation places (including club buildings without bedrooms)	.	80	\$276,037	10
Churches, chapels, and parish houses	.	13	471,309	8
Factories, bakeries, ice-plants, greenhouses, laundries, and other workshops	.	84	555,910	7
Garages, public	.	40	167,175	13
Garages, private	.	2,228	844,231	4
Gasoline and service stations	.	135	576,462	6
Institutional buildings	.	16	3,078,763	1
Office buildings, including banks	.	23	58,315	14
Public buildings, including libraries and museums	.	13	259,232	11
Public works and utilities	.	28	779,867	5
Schools, grade and high (public and private)	.	9	1,653,470	2
Sheds, poultry houses, and other minor outbuildings	.	776	222,637	12
Storage warehouses, coal pockets, lumber sheds, etc.	.	124	364,860	9
Stores, restaurants, and other mercantile buildings	.	169	1,032,700	3
All other non-residential buildings	.	<u>62</u>	<u>26,895</u>	<u>15</u>
<i>Totals — New non-residential buildings</i>	.	<u>3,800</u>	<u>\$10,367,863</u>	<u>—</u>
<i>Additions, alterations, and repairs</i>	.	<u>14,254</u>	<u>\$11,937,370</u>	<u>—</u>

In Table 16 data are presented, showing, by classes of structures, the number of new residential buildings for which permits to build were granted, the estimated cost of such buildings, and the number of family accommodations to be provided in the several different classes of dwellings; and, for non-residential buildings, the number of buildings to be erected, the estimated cost of such buildings, and the number and estimated cost of additions, alterations and repairs.

Of the 1,314 dwellings planned in 1934, 1,287, or 98.0 per cent, were one-family dwellings, and 20, or 1.5 per cent, were two-family dwellings. The remaining 0.5 per cent comprised three multi-family dwellings, and four dwellings and stores combined. No non-housekeeping dwellings were planned. That there has been a very marked decline in the number of multi-family houses erected in the 55 municipalities is very evident from the fact that permits were granted in 1927 for 917 dwellings to provide 6,051 family accommodations, whereas in 1934 permits were granted for only three dwellings to provide 12 family accommodations.

Of the estimated cost of all kinds of dwellings in 1934 (\$7,399,030), \$7,233,930, or 97.8 per cent, represented one-family dwellings; \$123,600, or 1.7 per cent, represented two-family dwellings; and the remaining 0.5 per cent represented multi-family dwellings and dwellings and stores combined. Of the 1,343 family accom-

modations provided, 1,287, or 95.8 per cent, were in one-family houses; 40, or 3.0 per cent, were in two-family houses; 12, or 0.9 per cent, were in multi-family houses; and the remaining four were in dwellings and stores combined.

In the 55 municipalities combined the total number of new non-residential buildings planned in 1934 was 3,800, and the value represented by these structures was \$10,367,863. The eight principal groups were: 16 institutional buildings, to cost \$3,078,763; 9 schools, grade and high (public and private), \$1,653,470; 169 stores, restaurants, and other mercantile buildings, \$1,032,700; 2,228 private garages, \$844,231; 28 public works and utilities, \$779,867; 135 gasoline and service stations, \$576,462; 84 factories, bakeries, ice-plants, greenhouses, laundries, and other

Table 17.—Index Numbers of Values Represented by Permits to Build in 55 Municipalities in Massachusetts, 1927-1934, by Months: By Classes of Projects

(Base—Average for the year, 1927 = 100)

MONTHS	YEARS							
	1927	1928	1929	1930	1931	1932	1933	1934
All Classes of Projects								
January	48.1	76.7	59.7	39.1	27.5	17.5	7.9	8.8
February	77.4	65.3	51.0	32.5	32.7	23.6	6.0	5.6
March	107.8	98.3	110.8	65.7	38.5	19.4	11.1	13.0
April	117.2	120.6	106.7	70.2	52.7	25.8	10.4	15.5
May	108.9	97.5	133.5	64.9	63.1	17.9	16.1	18.0
June	109.8	116.4	94.7	64.8	48.4	20.5	21.1	22.6
July	101.4	92.3	108.5	73.0	64.6	25.7	15.8	30.7
August	146.4	99.1	105.2	57.7	53.7	13.1	19.8	18.1
September	89.4	86.8	81.6	52.7	87.4	20.5	12.3	17.5
October	96.5	108.6	79.7	61.0	38.0	12.4	18.0	20.4
November	96.3	100.6	41.2	69.0	37.5	9.1	16.1	13.4
December	99.7	68.9	43.6	59.2	22.5	8.7	10.9	12.7
<i>Average</i>	100.0	94.3	84.7	59.2	47.2	17.9	13.8	16.4
New Residential Building								
January	50.8	77.9	58.3	22.1	32.6	11.4	5.8	4.2
February	61.0	57.8	56.4	19.2	17.3	9.2	2.3	2.6
March	116.2	113.4	133.8	40.4	34.8	9.0	4.6	5.4
April	124.0	131.4	101.0	54.1	45.4	12.8	6.4	10.6
May	117.6	109.9	102.7	46.6	38.1	11.3	11.7	10.5
June	121.5	119.7	67.1	39.3	33.8	10.6	17.6	9.5
July	88.4	89.2	62.9	40.3	40.7	8.1	13.9	8.0
August	136.4	94.8	46.9	37.5	30.7	9.7	15.3	9.2
September	91.8	85.5	62.7	32.3	32.6	9.3	10.8	5.9
October	98.9	98.0	69.2	36.5	34.1	8.7	10.1	8.3
November	111.8	83.3	37.5	37.6	28.1	9.1	7.8	6.3
December	81.6	79.2	24.7	66.6	19.7	6.0	5.7	6.4
<i>Average</i>	100.0	95.0	68.6	39.4	32.3	9.6	9.3	7.2
New Non-residential Building								
January	31.3	81.4	52.1	64.8	12.0	20.2	3.9	4.9
February	104.3	88.2	28.8	16.2	61.7	34.9	7.3	1.9
March	73.1	88.7	69.0	80.3	36.8	24.1	20.1	9.6
April	102.4	118.4	110.8	95.7	60.3	26.1	8.1	12.2
May	85.0	75.5	182.3	82.8	109.1	18.3	7.7	17.6
June	87.5	104.9	139.9	99.0	67.1	30.0	13.8	28.4
July	95.4	94.0	153.4	114.6	115.2	52.6	5.5	66.3
August	179.6	106.8	194.4	92.8	89.1	10.4	17.8	20.9
September	77.7	87.0	124.6	89.8	215.2	39.1	6.3	21.9
October	110.4	150.8	76.7	110.7	45.2	9.5	17.2	24.9
November	90.6	151.7	40.9	149.5	55.7	3.9	11.7	18.2
December	163.0	59.6	77.9	51.2	25.5	6.4	11.6	13.6
<i>Average</i>	100.0	100.6	104.2	87.3	74.4	23.0	10.9	20.0
Additions, Alterations, and Repairs								
January	69.8	64.1	79.1	54.3	37.7	34.8	23.3	33.2
February	88.3	50.6	73.1	112.2	35.8	55.7	17.2	23.6
March	142.8	60.9	105.1	131.9	55.4	49.3	18.4	47.6
April	120.7	85.2	121.0	82.3	65.9	73.8	29.5	40.4
May	122.1	93.2	156.8	99.5	70.1	41.6	48.4	46.8
June	108.7	126.9	112.3	95.4	67.4	39.0	47.5	60.0
July	161.4	101.0	193.5	116.5	58.3	40.3	42.2	48.1
August	122.4	100.9	154.0	66.6	72.8	30.4	40.6	45.7
September	103.0	91.9	70.9	58.9	51.0	27.1	29.3	52.3
October	61.9	69.2	124.5	59.1	39.3	31.5	48.8	56.6
November	50.3	69.7	55.4	34.5	38.6	18.9	55.2	30.7
December	48.3	48.8	49.6	47.5	27.3	22.7	28.7	34.6
<i>Average</i>	100.0	80.2	107.9	79.9	51.6	38.8	35.8	43.3

workshops, \$555,910; and 13 churches, chapels and parish houses, \$471,309. These eight groups together represented \$8,992,612, or 86.7 per cent, of the total cost of new non-residential buildings reported in the group of 55 municipalities.

The estimated cost of additions, alterations, and repairs in 1934, represented by 14,254 permits, amounted to \$11,937,370. Of this total value, over \$1,250,000 was represented by seven large individual projects coming under this classification.

The year 1927 was the first year in which returns were received from all of the 55 municipalities which have since been regularly included in our monthly surveys. For the purpose of showing the monthly, seasonal, and yearly trends of building construction, four series of index numbers of the values represented by permits to build have been computed. The first series relates to "all classes of projects" and the other three relate to the main sub-divisions which are: new residential building; new non-residential building; and additions, alterations, and repairs. The year 1927 was selected as the base year as it appeared to be a fairly normal year.

Attention is directed to what might be called three distinct "periods" during the eight years under consideration. There were very marked changes between 1929 and 1930 and between 1931 and 1932. For all classes of projects combined the average of the index numbers for each of the years 1927, 1928 and 1929 were, respectively, 100.0, 94.3 and 84.7, or an average for the first "period" of 93.0. The index numbers for 1930 and 1931 were, respectively, 59.2 and 47.2, or an average for the second "period" of 53.2. The respective numbers for 1932, 1933 and 1934, were 17.9, 13.8 and 16.4, or an average of 16.0 for the third "period." These fluctuations are clearly illustrated in the chart on page 117.

New residential construction followed the general trend, but declined somewhat more rapidly after 1928 than did the other two classes of construction and reached a low level, an average of only 9.0 per cent of normal, during the last three years. New non-residential construction maintained a fairly high level during each of the years 1927-1930 inclusive. There was somewhat less construction of this type in 1931, and in 1932 there was a marked decline. In 1933 there was even less construction planned, and the index number for the year was 10.9. In 1934 the index number increased to 20.0. The value of additions, alterations, and repair work during the eight-year period showed the least change of the three classes, and reached the lowest point in 1932, represented by the index number 35.8. It appears, therefore, that much work of this nature was done during the last five years, while comparatively little new work was undertaken.

INFORMATION SERVICE

Special Inquiries.—An important part of the work of the Division of Statistics consists in the answering of special inquiries relative to the industries of the Commonwealth, rates of wages, hours of labor and conditions of employment. During the past year, there has been a large increase in the number of requests for information for use by various agencies and individuals in connection with the work of the National Recovery Administration. A record of such special inquiries has been kept during the year and the number which required special attention was 482, of which number 162 were of such a nature as to require the making of special tabulations of information on file in the Division and 320 of which were answered directly from the research library regarding which a statement appears below.

In some cases, the work entailed in answering the inquiries rendered it necessary to employ special assistance and the cost of the work was paid directly by the inquirer to the temporary clerks and stenographers who were employed on this work, which, for the most part, consisted of the preparation of lists of establishments in various industries and tabulations of principal data relative to manufactures for a series of years.

Reference Library.—The reference library, which is maintained primarily for the use of the officials of the Department, is also used extensively by the general public and has become an essential public service. A librarian and two assistants devote full time to this work and answer many inquiries addressed to the Department.

The library now includes 3,575 bound volumes of official and unofficial reports, reference books, and numerous pamphlets and mimeographed reports on industrial

subjects. There are received currently 13 daily newspapers, 17 quarterlies, 205 monthlies, 13 semi-monthlies, and 31 weeklies, many of which are contributed on an exchange basis by Federal and State Labor Departments, and organizations engaged in industrial research.

The various reports and periodicals are catalogued when received, and are then sent to the respective officials who may be interested in them. A newspaper clipping service is also maintained, which enables the department officials to keep in touch with current problems. In addition to official governmental reports there is in the library a collection of publications and periodicals published by many business and private organizations in the interests of all branches of labor and industry. Some of these publications are not available in any other library in Boston or vicinity.

The work of the library has increased greatly since the establishment of the National Recovery Administration, with its numerous agencies, and many of the inquiries had reference to the N. R. A. codes, copies of which are on file in the library. Other subjects of special interest included the following: unemployment; unemployment benefits and insurance; public works; collective bargaining; incomes; wages and hours of labor; cost of living; labor laws and compacts; workmen's compensation; State resources; building operations and prices; occupational diseases and hazards. Many requests were also received for information published in the reports of the 1930 Federal Census and regarding new projects which were being undertaken by the Census Bureau in co-operation with the Federal Emergency Relief Administration. During the legislative session, many inquiries were received relative to bills of interest to labor, and their status at the time. A great many inquiries came by telephone, and where the facts desired could readily be supplied, were answered immediately, but in many cases some research was necessary before the information could be furnished.

CENSUS OF UNEMPLOYMENT IN MASSACHUSETTS, 1934

The census of unemployment in Massachusetts was taken as of January 2, 1934, as a Civil Works Administration Project, under the general supervision of the Massachusetts Department of Labor and Industries. Funds for taking the census and for the preparation of a preliminary report were granted by the Federal Government.

On December 14, 1933, Mr. Harry L. Hopkins, Federal Administrator of the Civil Works Administration, authorized the taking of the census. The Commissioner of the Department, Mr. Edwin S. Smith, appointed Mrs. Anne Page as Director of the Census, and under her immediate supervision all of the field enumeration, verification of the terms, and a considerable part of the tabulation of the data were accomplished.

The Department provided office space for the administrative staff at 169 Congress Street, Boston (the central headquarters of the census), and later secured office space at the State House for the use of the editorial staff, and also furnished some supervisory and clerical assistance, and a limited amount of materials and supplies.

The primary purpose of the census was to obtain authentic information as to the number of persons who were unemployed on January 2, 1934, in each of the 355 cities and towns in the Commonwealth, classified by race, sex, age, the customary occupation of all persons who were unemployed, and the causes and duration of their unemployment. In order that the census might be exhaustive, it was necessary to make a thorough house-to-house canvass in each city and town. Incidentally, the total population of the cities and towns was ascertained, but the census should not be considered as an official census of the population of the State, or of the individual cities and towns. In connection with the unemployment census, a "Health Census" was taken in the city of Boston, and the enumerators secured records of illnesses during the last six months in 1933, of all persons in the city of Boston, to which city the Health Census was confined.

The preliminary work in preparation for the census was taken immediately following the appointment of the Director of the Census. The census was organized with central headquarters in Boston, and with district offices in 14 supervisory

districts, into which the State was divided. The field enumeration was begun early in February, 1934; it did not start simultaneously in all the enumeration districts, but by February 10, the enumeration was in progress generally throughout the State. Nearly all of the enumeration was completed by May 1, and there were only a few localities where because of local conditions it was not fully completed.

This census was essentially a women's project, and it was the intention, so far as possible, to employ women exclusively on this work.

Three questionnaires were used in the field enumeration, as follows:

- (a) "Family schedule"—calling for the name, sex, age, race, customary occupation, and employment status of each individual in the family.
- (b) "Individual unemployment schedule"—calling for information relative to each person 14 years of age and over, who was wholly unemployed, temporarily employed either on a government project, or private work, or employed part time. For such individuals, the following information was obtained:—name, relation to head of household, sex, age, race, customary occupation, industry in which customarily employed, stop-gap occupation, duration of unemployment since employment at customary occupation, or any occupation, reason for unemployment, and ability and desire to work. For persons over 14 years of age inquiry was made relative to the year in which such persons stopped attending day school, and their regular employment since leaving day school.
- (c) "Health schedule" (used only in the city of Boston)—calling for the name, sex, age, race, and birthplace of all persons who were ill at any time during the last six months in 1933, and for further information relative to the nature of the illness, its termination, place where the patient resided during the illness, and the medical or other care received while ill.

After careful study of the available data and a conference with representatives of various organizations interested in the results of the census, it was decided to present the results in a series of basic statistical tables, summarizing data for the State as a whole, and also to present information in detail for each of the 77 cities and towns having a population of 10,000 or over. For each of the 278 towns having a population of less than 10,000 the returns were tabulated, but the principal data only for these towns were published in the report.

On September 1, 1934, the central headquarters at 169 Congress Street, Boston, were closed, and a new project, designated as "Editing the Report on the Census of Unemployment," was authorized by the State Emergency Relief Administration, to provide for the editing of the report, and for the mimeographing and planographing of a preliminary report of the census. A small editorial staff was employed on this work, and office space in the State House, and later in Shepard Hall, 29 Holyoke Street, Cambridge, was obtained for this purpose.

About 250 copies of the preliminary report of the census were issued in planographed and mimeographed form, and distributed through the office of the Emergency Relief Administration of Massachusetts, 49 Federal Street, Boston. Provision was made for the publication of the final report in an edition of 3,000 copies, as an official report of the Department of Labor and Industries.¹

The outstanding results of the census for the State as a whole are presented in Table 18. For the principal cities and towns statistical tables, similar to the summary table for the State, are included in the report.

According to the census returns, the total population ² of the State on January 2, 1934, was 4,301,931, of whom 2,089,368, or 48.6 per cent, were males and 2,212,563, or 51.4 per cent were females. Of the total population, 1,808,840, or 42.4 per cent, were reported as employable, of whom 1,286,224, or 71.1 per cent, were males and 522,616, or 28.9 per cent, were females.

¹ To be published as Labor Bulletin No. 171. (See page 59.)

² Although this census was not an official census of the population, it is believed that the population returns are substantially correct, because a thorough house-to-house canvass in each city and town was made, in order to secure information relative to all persons who were unemployed.

In computing the unemployment percentages presented in the report, the total number of *employable persons*, rather than the total population, was used as a base. Of the 1,808,840 employable persons in the State, 346,021, or 19.1 per cent, were wholly unemployed; 101,941, or 5.6 per cent, were temporarily employed on government projects; 2,893, or 0.2 per cent, were temporarily employed on private projects; and 173,671, or 9.6 per cent, were employed on part-time. If these items are combined it is found that the total number of persons who were entirely without employment, or were employed on temporary or part-time work, was 624,526, or 34.5 per cent of the total number of employable persons in the State. The number of persons who were regularly employed on a full-time basis was 1,184,314, or 65.5 per cent of the total number of employable persons in the State.

For males and females considered separately, the percentages unemployed did not vary greatly from the corresponding percentages for the two groups combined, except that relatively few of the females were temporarily employed on government projects. Of the 1,286,224 employable males, 243,480, or 18.9 per cent, were wholly unemployed; 94,724, or 7.3 per cent, were temporarily employed on government projects; 2,144, or 0.2 per cent, were temporarily employed on private projects; and 119,381, or 9.3 per cent, were employed on part-time. Of the 522,616 employable females, 102,541, or 19.6 per cent, were wholly unemployed; 7,217, or 1.4 per cent, were employed temporarily on government projects; 749, or 0.1 per cent, were employed temporarily on private projects; and 54,290, or 10.4 per cent, were employed on part-time.

The total number of persons reported as "not seeking employment" was 2,493,091, or 58.0 per cent of the total population (4,301,931). This group includes all children under 14 years of age, housewives, students 14 years of age and over, persons unable to work, retired and aged persons, and persons voluntarily unemployed for other reasons. Of the 2,089,368 males in the State, 803,144, or 38.4 per cent, were reported as not seeking employment. Of the 2,212,563 females, 1,689,947, or 76.3 per cent (many of whom were housewives) were included in this group.

Table 18.—Total Population and Employment Status: By Classes and Sex
SUMMARY FOR THE STATE

(Source: Massachusetts Unemployment Census, as of January 2, 1934)

CLASSIFICATION	NUMBER			PER CENT—BASED ON NUMBER OF EMPLOYABLE PERSONS		
	Males	Females	Total	Males	Females	Total
<i>Total Population (a)</i>	2,089,368	2,212,563	4,301,931	—	—	—
Population 14 years of age and over	1,598,666	1,730,469	3,329,135	—	—	—
Number of Employable Persons	1,286,224	522,616	1,808,840	100.0	100.0	100.0
<i>Employment Status</i>						
Wholly unemployed	243,480	102,541	346,021	18.9	19.6	19.1
Temporarily employed on Government Projects	94,724	7,217	101,941	7.3	1.4	5.6
Temporarily employed on Private Projects	2,144	749	2,893	0.2	0.1	0.2
<i>Total Unemployed (b)</i>	340,348	110,507	450,855	26.4	21.1	24.9
Part-time employed	119,381	54,290	173,671	9.3	10.4	9.6
Total unemployed or not fully employed	459,729	164,797	624,526	35.7	31.5	34.5
Full-time employed	826,495	357,819	1,184,314	64.3	68.5	65.5
Not seeking employment (c)	803,144	1,689,947	2,493,091	—	—	—
Total Population	2,089,368	2,212,563	4,301,931	—	—	—

(a) The total number of families enumerated was 1,070,970 — an average of 4.017 persons per family.
 (b) Persons employed temporarily on government and private projects were considered as unemployed.
 (c) Includes all children under 14 years of age; housewives; students fourteen years of age and over; persons unable to work; retired and aged persons; and persons voluntarily unemployed for other reasons.

STATISTICS OF MANUFACTURES, 1933

Introductory.—The census of manufactures in Massachusetts for the year 1933 was taken by the Division of Statistics in co-operation with the United States Bureau of the Census, thereby avoiding duplication of a large amount of field and office work, and effecting a considerable saving to the Department on account of salaries, postage and printing. As in other years, when a biennial census has been taken by the Federal Bureau, the census in this State was under the immediate supervision of the Director of Statistics, who was appointed supervisor of the Census in Massachusetts by the Federal Bureau. The schedules used were furnished by the Census Bureau and the franking privilege was granted in connection with the work. The original reports by manufacturers were forwarded to the Federal Bureau after copies had been made for the records of this Department.

The total number of manufacturing establishments in operation in Massachusetts in 1933 was 8,145, not including those in which the value of products manufactured during the year was less than \$5,000. The total value of products manufactured for the year in these establishments was \$1,668,733,387, the cost of stock and materials used in manufacture amounted to \$800,611,332, and the difference between these amounts (\$868,122,055) represents the *value added* by the various manufacturing processes. The average number of wage-earners employed in the 8,145 establishments was 398,592, and the total amount paid in wages for the year was \$354,523,624.

A comparison of the totals for 1933 with those for the year 1932 shows that for all industries there were increases, as follows: value of products, 9.7 per cent; value added by manufacture, 8.1 per cent; value of stock and materials used, 11.5 per cent; amount paid in wages, 6.0 per cent; and average number of wage-earners employed, 13.7 per cent.

The returns for the year were tabulated by municipalities, by principal industries therein, and the results were issued by this Department in the form of press notices, one for each city. That better conditions prevailed in 1933 than in the years immediately preceding is evidenced from an examination of the totals for the 39 cities of the State, 25 of which exhibited increased product value, larger numbers of wage-earners employed, and generally higher pay rolls, the curve in nearly all of these items being definitely upward.

Since the relatively prosperous year 1929, there was a continuous decrease from year to year¹ in the number of wage-earners employed until 1932, when the number reached the lowest point, but in 1933 there was an increase in employment, which was encouraging because it was the first year, since the beginning of the depression in 1929, in which the trend line representing employment of wage-earners in all industries, combined, showed a definite movement upward instead of downward. In 1933 the number of wage-earners employed increased from 345,297 in January to 459,976 in October, the month of maximum employment during the year, whereas the largest number employed in any month in 1932 was only 382,178.

Although the totals for all manufacturing industries, combined, showed considerable improvement in 1933 over 1932, this was not true of some of the major industries, notably boots and shoes, in which there was only a slight increase in the value of products. During the year 1933 a large number of establishments removed from their former locations, and the records show that there were 44 boot and shoe establishments which went out of business and that 12 moved from Massachusetts to other states (five to New Hampshire, five to Maine, and two to Rhode Island). In the establishments which went out of existence, or moved to other states, the average number of wage-earners employed was 3,706, but this loss was largely offset by 34 new boot and shoe establishments which began operations in this State in 1933, in which 1,969 wage-earners were employed, and by five establishments which moved into Massachusetts from other states (three from New Hampshire, and two from New York), in which 1,099 wage-earners were employed, making a total increase of 3,068 wage-earners in these new establishments. The net loss, therefore, in the boot and shoe industry in 1933 was 16 establishments and 638 wage-earners.

¹ See Table 19 on page 93.

In the manufacture of cotton goods, conditions were more encouraging. Operations for the year were conducted on a somewhat different basis than formerly, as a result of the cotton textile code. Prices of cotton goods rose rapidly, and in each of the three principal cotton manufacturing centers in Massachusetts (Fall River, New Bedford and Lowell), there were large increases in the value of goods produced, and in the number of wage-earners employed. For the State as a whole, the increase in the value of cotton goods produced was \$30,562,503, or nearly 45 per cent greater than in 1932, and there was a corresponding increase in the average number of wage-earners employed, from 32,464 in 1932 to 45,418 in 1933, or 39.9 per cent.

In order that the census data for municipalities and principal industries therein could be made public as early as possible, preliminary tabulations were issued in the form of press announcements¹ immediately on completion of the tabulation for the respective municipalities.

¹ This series of press notices was issued under the title "Manufactures Press Notices," and included the following:

Nos. 1-39. *Individual Cities.* A separate press notice for each of the 39 cities containing data, by principal industries, for 1933, with comparable data for specified industries for certain prior years.

No. 40. *Summary by Cities.* Totals only for each city, 1933.

No. 41. *General Summary for the State.* Principal data by years 1916-1933.

No. 42. *Summary by Towns.* Totals only for each town, 1933.

No. 43. *Metropolitan Boston.* Principal data by municipalities, 1933.

No. 44. *Summary by Industries.* Principal data for leading industries, 1933, with comparable data for the years 1923-1933.

SUMMARY OF PRINCIPAL DATA, 1916 TO 1933

All Industries, Combined.—In order to show the general industrial trend in Massachusetts for a series of years, the principal data for all manufacturing industries, combined, for the years 1916 to 1933, inclusive, are presented in Table 19. In making comparisons for the several years of the money values presented in this summary, due allowance should be made for price fluctuations from year to year. The values of products manufactured do not necessarily represent the relative volume of goods produced in the several years.

Table 19.—Principal Data Relative to Manufactures in Massachusetts, All Industries Combined, 1916-1933, Inclusive

YEARS	Number of Establishments	Capital Invested	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products	Value Added by Manufacture
1916	9,829	\$1,791,050,092	\$1,354,433,202	\$447,957,731	682,621	\$2,349,933,003	\$995,499,801
1917	9,865	2,239,848,630	1,782,440,354	537,144,629	708,421	3,020,557,545	1,238,117,191
1918	9,695	2,510,730,295	2,249,822,722	679,401,273	719,210	3,851,346,215	1,601,523,493
1919	11,906 ¹	2,962,108,527	2,260,713,036	766,623,337	713,836	4,011,181,532	1,750,468,496
1920	10,262	2,987,620,867	2,489,237,446	891,176,822	695,832	4,370,276,822	1,881,039,376
1921	9,994 ¹	²	1,441,035,230	641,360,936	579,071	2,849,413,516	1,408,378,286
1922	10,056	2,822,014,756	1,512,510,103	678,073,968	612,682	3,002,625,958	1,490,115,853
1923	10,519 ¹	²	1,835,218,349	799,363,111	667,443	3,570,543,265	1,735,324,916
1924	10,174	2,853,590,206	1,629,342,134	711,812,104	589,364	3,126,137,145	1,496,795,011
1925	10,027 ¹	²	1,794,643,051	716,155,593	591,438	3,426,617,326	1,631,974,275
1926	9,903	2,819,189,700	1,790,611,294	738,208,510	602,343	3,419,814,877	1,629,203,583
1927	10,037 ¹	²	1,678,812,411	705,929,549	578,068	3,317,851,888	1,639,039,477
1928	9,971	2,735,070,138	1,663,155,564	670,063,291	540,927	3,224,227,651	1,561,072,087
1929	9,872 ¹	²	1,681,432,788	694,805,312	557,494	3,392,162,237	1,710,729,449
1930	9,586	2,483,589,920	1,333,317,227	573,838,044	481,449	2,676,387,256	1,343,070,029
1931	9,305 ¹	²	1,015,093,739	474,189,202	434,441	2,157,450,449	1,142,356,710
1932	8,778	1,888,244,721	718,347,675	334,358,550	350,521	1,521,752,939	803,405,264
1933	8,145 ¹	²	800,611,332	354,523,624	398,592	1,668,733,387	868,122,055

¹ The Census of Manufactures for the years 1919, 1921, 1923, 1925, 1927, 1929, 1931, and 1933 included certain publishing establishments not canvassed in the other years specified, and data for these years, therefore, are not strictly comparable with corresponding data for the other years specified.

² Not called for on the questionnaire.

The State.—In Tables 20 and 21 principal data for 1933 are presented for each of the industries in which there were three or more establishments, and for which the data can be presented without disclosing the operations of individual establishments:

Table 20.—Summary of Data Relative to the Principal Manufacturing Industries in Massachusetts—1933

PRINCIPAL INDUSTRIES (Arranged in the order of value of products) ¹	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
All Industries . . .	8,145	\$800,611,332	\$354,523,624	398,592	\$1,668,733,387
Woolen and worsted goods	111	81,395,142	33,072,129	39,808	148,798,542
Boots and shoes, other than rubber ²	389	65,591,230	36,559,127	46,739	128,073,952
Cotton goods, excluding cotton small wares	103	51,189,247	31,110,036	45,418	98,602,761
Printing and publishing	829	17,238,002	16,336,090	11,359	81,164,261
Bread and other bakery products	1,021	25,972,865	11,907,157	10,797	55,568,784
Dyeing and finishing textiles	65	32,488,442	10,366,906	11,178	54,714,526
Electrical machinery apparatus, and supplies ³	84	19,586,736	13,263,342	14,285	52,628,350
Leather: Tanned, curried and finished	100	27,193,279	11,077,713	9,980	48,630,000
Clothing, men's and women's, including work clothing	412	25,706,754	9,503,081	12,612	47,726,650
Paper and wood pulp	68	19,193,695	8,212,224	9,513	40,577,557
Foundry and machine-shop products	335	11,043,569	12,084,953	11,022	38,524,134
Boot and shoe cut stock and findings, not made in boot and shoe factories	306	23,322,043	5,827,882	6,989	38,394,504
Rubber goods, including rubber tires and inner tubes ⁴	56	17,518,009	6,203,983	6,844	35,953,802
Meat packing, wholesale	26	22,727,714	2,555,707	2,358	30,181,196
Knit goods	70	13,398,553	5,524,729	7,680	25,549,661
Textile machinery and parts	99	7,477,918	7,987,840	7,972	25,143,027
All other industries ⁵ . . .	4,071	339,568,134	132,930,725	144,038	718,501,680

¹ Includes data for all industries for which the value of products in 1933 exceeded \$25,000,000, except Soap, sugar refining, and petroleum refining, the data for which cannot be given separately without disclosing the operations of individual establishments.

² For Boot and Shoe cut stock and findings, not made in boot and shoe factories, see Table 21.

³ Includes Radio apparatus, for which the data were separately tabulated in 1933, in which year the value of the radio apparatus manufactured was \$4,669,363.

⁴ Exclusive of rubber boots and shoes.

⁵ Includes data for all industries for which the value of products in 1933 was less than \$25,000,000 and, also, Soap, sugar refining, and petroleum refining, the data for which cannot be given separately without disclosing the operations of individual establishments.

Table 21.—Principal Data Relative to Manufactures, 1933.
The State: By Industries

INDUSTRIES	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
All Industries . . .	8,145	\$800,611,332	\$354,523,624	398,592	\$1,668,733,387
Aluminum products . . .	6	97,896	29,002	35	150,341
Artificial leather . . .	7	1,176,946	270,215	255	2,098,836
Artists' materials . . .	5	77,840	48,959	61	234,584
Awnings, tents, sails, and canvas covers . . .	47	342,744	213,169	207	892,972
Bags, other than paper . . .	5	418,374	48,954	70	594,807
Bags, paper . . .	5	1,059,645	213,546	254	1,621,378
Baskets and rattan and willow ware . . .	4	73,427	40,753	58	179,987
Belting and packing, leather	17	1,309,007	292,567	303	3,036,774
Beverages, non-alcoholic	126	2,522,999	755,403	708	6,825,342
Blacking, stains, and dressings	62	1,624,828	376,117	326	3,696,258
Bolts, nuts, washers, and rivets	6	168,285	64,197	68	331,540
Bookbinding and blank-book making . . .	73	2,137,394	2,549,300	2,620	7,833,520
Boot and shoe cut stock . . .	105	13,946,811	1,573,856	1,776	18,693,290
Boot and shoe findings . . .	201	9,375,232	4,254,026	5,213	19,701,214
Boots and shoes, other than rubber	389	65,591,230	36,559,127	46,739	128,073,952
Boots and shoes, rubber . . .	5	5,987,925	5,740,341	6,678	18,291,658
Boxes, paper, n.e.c. ¹ . . .	97	10,145,478	3,490,359	4,211	18,577,574
Boxes, wooden, except cigar boxes . . .	45	1,591,840	833,616	1,049	3,282,313

¹ n.e.c. = not elsewhere classified.

Table 21.—Continued

INDUSTRIES	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Bread and other bakery products	1,021	\$25,972,865	\$11,907,157	10,797	\$55,568,784
Brooms	7	104,279	52,824	68	198,067
Brushes, other than rubber	19	1,294,355	589,089	649	3,129,321
Butter	5	457,347	23,781	17	601,112
Buttons	9	144,713	91,514	148	306,143
Canned fruits and vegetables, preserves, etc.	32	3,617,009	469,285	489	5,793,653
Canned and preserved fish	16	1,644,003	609,573	651	3,134,890
Card cutting and designing	5	391,801	139,115	167	818,096
Carpets and rugs, rag	5	27,459	16,941	25	63,267
Carpets and rugs, wool, other than rag	6	2,484,227	1,681,097	1,925	6,051,981
Carriages and sleds, children's	11	1,490,503	753,861	1,030	3,016,524
Caskets, coffins, burial cases, etc.	17	873,954	452,206	402	2,220,871
Cereal preparations	4	69,761	8,473	9	130,918
Cheese	5	480,526	32,002	29	667,518
Chemicals, n.e.c. ¹	18	6,257,723	2,206,470	2,367	12,696,569
Chocolate and cocoa products	10	5,763,032	891,566	880	7,698,866
Cigars	25	883,126	340,557	513	1,731,020
Clay products (other than pottery)	12	93,070	124,258	173	386,582
Cleaning and polishing preparations	35	333,823	75,681	76	817,137
Clocks, watches and time-recording devices, etc.	10	1,318,467	1,570,649	2,062	4,044,631
Clothing, men's, youths', and boys' (except work)	130	10,247,035	4,078,003	5,143	19,997,373
Clothing, work (including work shirts), men's	38	2,264,088	905,730	1,309	4,069,883
Clothing, women's, n.e.c. ¹	244	13,195,631	4,519,348	6,160	23,659,394
Cloth sponging and refinishing	4	4,354	21,759	20	58,222
Combs and hairpins, other than metal or rubber	10	417,879	261,008	381	802,378
Compressed and liquefied gases	9	337,790	129,643	101	1,219,888
Concrete products	34	316,578	212,033	216	817,390
Condensed and evaporated milk	4	653,589	27,962	27	880,790
Confectionery	108	11,333,589	3,889,281	5,429	20,959,943
Cooperage	11	650,212	237,317	324	1,170,010
Cordage and twine	12	2,240,162	984,464	1,198	5,530,950
Corsets and allied garments	11	1,318,881	422,855	675	2,465,807
Cotton goods	103	51,189,247	31,110,036	45,418	98,602,761
Cotton small wares	34	3,591,938	1,762,759	2,219	6,946,444
Cutlery (not including silver and plated cutlery) and edge tools	39	1,187,210	1,365,975	1,529	12,130,842
Dentists' supplies	5	128,780	43,759	64	282,668
Doors, shutters, etc.	7	106,365	77,518	78	261,039
Druggists' preparations	21	2,613,244	574,700	643	7,314,422
Dyeing and finishing textiles	65	32,488,442	10,366,906	11,178	54,714,526
Electrical machinery, apparatus, and supplies	73	17,776,670	11,666,831	12,416	47,958,987
Electroplating	33	106,221	210,353	226	512,344
Elevators and elevator equipment	8	158,129	95,880	75	384,197
Engines, turbines, water wheels, etc.	4	65,453	59,896	49	180,667
Engraving (other than steel, copperplate, or wood)	19	46,212	152,011	134	384,281
Engraving, steel, copperplate, and wood, and plate printing	20	425,787	318,608	411	1,255,458
Envelopes	18	3,606,104	1,359,364	1,679	6,953,033
Feeds, prepared, for animals and fowls	14	3,315,786	226,644	215	4,400,300
Felt goods, wool, hair, or jute	11	1,684,809	627,865	632	3,526,476
Fertilizers	7	1,974,105	205,039	250	2,513,346
Firearms	4	189,299	387,373	466	919,460
Flavoring extracts and flavoring sirups	21	671,831	122,410	126	1,768,799
Flour and other grain-mill products	9	691,655	25,374	28	776,804
Food preparations, n.e.c. ¹	49	1,567,919	286,603	326	3,354,960
Forgings, iron and steel	8	939,375	453,022	508	1,863,437
Foundry and machine-shop products, n.e.c. ¹	335	11,043,569	12,084,953	11,022	38,524,134
Fur goods	15	258,557	127,131	100	598,176

¹ n.e.c. = not elsewhere classified.

Table 21.—Continued

INDUSTRIES	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Furnishing goods, men's, n.e.c. ¹	31	\$2,499,805	\$791,966	1,263	\$4,651,538
Furniture, including store and office fixtures	181	7,174,721	4,684,374	5,357	15,497,274
Galvanizing and other coating	5	40,327	29,151	28	113,614
Gas, manufactured, illuminating and heating	32	6,140,281	2,900,079	2,051	20,842,092
Glue and gelatin	10	2,237,461	601,857	564	4,268,774
Gold leaf and foil	5	22,895	7,402	8	42,445
Grease and tallow	13	1,135,301	450,365	425	2,646,081
Hand stamps and stencils and brands	18	65,638	80,929	80	352,351
Hardware, n.e.c. ¹	26	935,794	558,176	703	2,381,557
Hats and caps, except felt and straw, men's	17	131,418	61,411	81	318,099
Hats, fur-felt	5	587,781	164,437	275	885,798
Hats, straw, men's	5	533,923	277,068	462	875,393
House-furnishing goods, n.e.c. ¹	82	7,583,672	1,219,810	2,023	10,734,961
Ice cream	126	4,318,280	995,456	794	9,449,577
Ice, manufactured	48	819,550	503,714	322	3,937,502
Ink, printing	6	613,683	100,368	85	952,450
Instruments, professional and scientific	18	523,279	543,175	430	2,455,652
Jewelers' findings and materials	14	2,377,560	561,206	536	3,654,613
Jewelry	72	2,723,370	2,478,321	2,654	7,879,010
Jewelry and instrument cases	7	204,391	169,931	210	559,786
Knit goods	70	13,398,553	5,524,729	7,680	25,549,661
Lapidary work	3	9,770	14,984	15	47,007
Lasts and related products	23	526,732	780,139	600	2,059,974
Leather goods, n.e.c. ¹	32	875,903	342,237	460	1,853,998
Leather: Tanned, curried, and finished	100	27,193,279	11,077,713	9,980	48,630,000
Lighting equipment	9	291,241	181,743	202	801,079
Lime	5	243,720	132,743	156	585,229
Liquors, distilled, and ethyl alcohol	3	523,390	46,549	35	899,714
Liquors, malt	13	1,470,588	694,198	442	6,043,984
Lithographing	13	1,007,967	977,436	774	2,998,642
Lumber and timber products, n.e.c. ¹	33	421,588	320,081	398	966,272
Macaroni, spaghetti, vermicelli, etc.	6	615,002	121,453	134	973,643
Machine-tool accessories and precision tools	36	1,088,998	1,597,906	1,933	5,021,825
Machine tools	20	826,313	1,103,117	920	3,594,136
Marble, granite, and other stone products	101	878,797	1,019,139	806	3,094,677
Mattresses and bed springs, n.e.c. ¹	50	1,661,718	525,833	659	3,222,229
Meat packing, wholesale	26	22,727,714	2,555,707	2,358	30,181,196
Meters (gas, water, etc.) and gas generators	4	467,655	282,409	263	999,517
Millinery	22	1,275,886	720,054	980	2,574,873
Minerals and earths, ground	7	315,049	240,718	265	920,389
Mirror and picture frames	14	121,429	114,749	128	403,524
Mirrors and other glass products	14	176,935	189,067	138	525,611
Miscellaneous articles, n.e.c. ¹	40	1,180,064	823,838	1,153	2,975,736
Models and patterns, excluding paper patterns	48	122,885	420,859	320	982,756
Motor-vehicle bodies and motor-vehicle parts	24	849,099	455,631	508	1,822,823
Motorcycles, bicycles, and parts	4	1,439,398	555,823	690	2,607,518
Mucilage, paste, and other adhesives	5	160,859	34,472	24	304,684
Musical instruments and parts: Piano and organ	3	19,680	24,255	16	47,624
Musical instruments and parts and materials, n.e.c. ¹	7	93,498	114,639	138	306,956
Nails, spikes, etc., not made in wire mills	15	971,237	593,946	662	2,450,537
Nonferrous-metal alloys and products, except aluminum	62	2,470,497	1,068,593	1,090	5,213,555
Oils, n.e.c. ¹	5	469,349	49,446	33	770,325
Paints and varnishes	42	4,511,690	664,412	616	8,920,507
Paper	65	18,831,721	8,111,467	9,390	40,064,196

¹n.e.c. = not elsewhere classified.

Table 21.—Continued

INDUSTRIES	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Paper goods, n.e.c. ¹	67	\$10,314,135	\$3,391,789	3,682	\$18,488,323
Patent or proprietary medicines and compounds	48	1,440,239	349,995	407	6,422,494
Paving materials: Cement blocks and mixtures	7	961,565	154,321	91	1,529,717
Perfumes, cosmetics, etc.	17	184,369	48,338	57	468,426
Photo-engraving	43	164,780	654,165	396	1,581,886
Planing-mill products	93	1,662,069	803,771	730	3,327,021
Plumbers' supplies	21	1,284,106	506,593	545	2,648,367
Pocketbooks, purses, and card cases	21	1,544,760	903,308	1,420	3,190,442
Printing and publishing, book, music, and job	565	6,565,876	6,876,610	6,186	32,585,688
Printing and publishing, newspaper and periodical	264	10,672,126	9,459,480	5,173	48,578,573
Pulp goods and molded composition products	7	209,767	114,230	151	612,668
Pulp (wood and other fiber)	3	361,974	100,757	123	513,361
Pumps (hand and power) and pumping equipment	12	1,804,735	820,855	664	3,969,422
Radio apparatus and phonographs	11	1,810,066	1,596,511	1,869	4,669,363
Railroad repair shops, electric	10	374,321	1,085,220	794	1,502,698
Railroad repair shops, steam	16	2,674,534	4,092,412	3,065	7,023,546
Refrigerators and refrigerating apparatus	9	79,186	47,518	48	187,909
Regalia, robes, vestments, and badges	4	26,585	11,414	21	62,236
Rubber goods other than boots and shoes	56	17,518,009	6,203,983	6,844	35,953,802
Saddlery, harness, and whips	4	38,272	28,569	30	97,978
Sausage and sausage casings	67	3,856,077	700,245	616	5,574,003
Saws	8	456,838	347,701	386	1,623,949
Screw-machine products and wood screws	21	1,427,069	1,032,279	1,053	3,372,023
Sewing machines and attachments	5	110,249	333,328	161	766,815
Sheet-metal work not specifically classified	63	1,114,606	603,166	496	2,693,274
Shirts (except work shirts) and nightwear, men's	13	1,469,819	678,607	1,162	2,602,144
Signs and advertising novelties	20	225,988	232,930	219	728,380
Silk and rayon goods	42	11,542,895	6,514,871	9,278	23,936,958
Silverware and plated ware	27	1,821,596	1,251,497	1,442	5,469,458
Smelting and refining, non-ferrous metals other than gold, silver, and platinum, not from the ore	5	398,277	36,295	35	577,038
Sporting and athletic goods	11	1,146,122	935,443	1,058	3,796,487
Springs, steel, except wire	3	22,326	34,894	28	84,053
Stamped and enameled ware, and metal stampings	38	1,886,988	992,426	1,069	4,154,810
Stationery goods, n.e.c. ¹	10	641,029	283,650	426	1,412,432
Statuary and art goods	6	26,029	46,661	42	112,141
Steam and hot-water heating apparatus and steam fittings	24	928,576	1,107,323	1,113	3,516,690
Steam and other packing	8	197,143	78,990	79	554,719
Stereotyping and electro-typing	14	105,047	357,394	263	915,993
Stoves and ranges (other than electric) and warm-air furnaces	39	3,081,575	2,128,472	2,024	8,212,612
Structural and ornamental metal work	54	1,085,142	459,650	410	2,286,371
Suspenders, garters, and elastic woven goods	6	813,928	249,799	421	1,351,001
Tanning materials and natural dyestuffs	23	1,593,093	189,621	164	2,733,794
Textile machinery and parts	99	7,477,918	7,987,840	7,972	25,143,027
Tin cans and other tinware, n.e.c. ¹	8	1,383,759	518,325	492	2,579,972
Tools, not including edge tools, machine tools, files, or saws	36	1,007,032	863,039	1,011	3,535,927
Toys, games, and playground equipment	22	2,247,311	1,124,148	1,538	4,941,490

¹ n.e.c. = not elsewhere classified.

Table 21.—Continued

INDUSTRIES	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Trimmings and stamped art goods	11	\$219,993	\$73,849	88	\$421,644
Trunks, suitcases, and bags	14	343,136	135,246	205	684,943
Umbrellas, parasols, and canes	6	289,047	57,417	85	425,701
Upholstering materials, n.e.c. ¹	3	30,016	5,215	8	58,239
Vinegar and cider	8	323,753	58,638	65	546,046
Waste, processed	19	853,871	249,187	321	1,622,825
Window and door screens and weather strip	13	108,443	45,776	47	216,242
Window shades and fixtures	21	388,219	111,863	110	660,409
Wire drawn from purchased rods	12	5,775,801	3,409,827	3,138	12,840,815
Wirework, n.e.c. ¹	26	1,618,882	831,488	933	3,401,871
Wood turned and shaped and other wooden goods, n.e.c. ¹	35	831,442	502,521	618	1,959,591
Woolen goods	66	18,005,514	9,871,414	11,394	35,206,686
Wool scouring	9	584,166	776,816	715	2,350,007
Wool shoddy	20	1,827,405	387,362	436	2,922,420
Worsted goods	45	63,389,628	23,200,715	28,414	113,591,856
Other industries	228	102,200,337	21,018,557	20,561	183,869,768

¹ n.e.c. = not elsewhere classified.

Cities — Principal data having reference to manufactures in each of the 39 cities of the Commonwealth, with totals for the State and for the 316 towns, grouped together, are presented in Table 22.

Table 22.—Principal Data Relative to Manufactures in the 39 Cities in Massachusetts, 1933

(Preliminary tabulation subject to minor correction)

CITIES	Number of Establishments	Value of Stock and Materials Used ¹	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	8,145	\$800,611,332	\$354,523,624	398,592	\$1,668,733,387
39 Cities	6,657	615,054,278	268,768,845	300,366	1,289,084,008
Attleboro	104	7,355,415	3,808,731	4,103	15,334,900
Beverly	38	1,442,261	3,575,408	2,919	7,467,642
Boston	2,144	136,698,510	48,967,876	46,823	288,569,492
Brockton	197	17,244,318	7,716,116	8,859	33,931,976
Cambridge	342	34,853,253	14,102,984	15,095	97,931,556
Chelsea	102	7,058,557	3,739,933	4,002	14,951,885
Chicopee	45	11,811,145	4,270,655	4,768	23,950,565
Everett	97	24,062,236	4,458,489	3,760	37,971,978
Fall River	236	33,883,432	15,714,836	22,733	62,165,267
Fitchburg	85	10,164,247	3,935,540	5,114	18,617,998
Gardner	67	4,918,740	3,293,122	3,989	11,655,213
Gloucester	56	3,397,284	1,210,267	1,383	6,586,766
Haverhill	269	13,785,210	6,685,573	8,327	27,342,342
Holyoke	137	16,176,931	8,934,416	10,646	35,332,301
Lawrence	144	43,552,900	17,602,918	21,469	83,021,695
Leominster	66	4,524,935	2,637,257	3,652	10,289,686
Lowell	197	22,064,776	10,399,641	13,308	42,191,723
Lynn	304	18,263,835	11,601,453	12,275	47,340,476
Malden	93	7,785,448	2,238,414	2,510	16,012,844
Marlborough	24	2,368,078	1,605,540	2,064	5,239,497
Medford	49	2,660,301	810,337	804	5,078,898
Melrose	19	404,685	234,022	214	929,979
New Bedford	195	26,647,876	16,233,389	23,260	55,677,006
Newburyport	29	1,700,147	1,032,488	1,496	3,959,183
Newton	61	3,511,644	1,560,886	1,848	8,179,012
North Adams	41	8,872,099	3,710,168	4,223	15,886,929
Northampton	44	1,986,247	1,631,104	1,917	5,817,168
Peabody	74	13,384,966	5,984,891	5,465	24,129,102
Pittsfield	50	6,714,004	3,879,965	4,431	17,685,582
Quincy	127	4,488,295	3,397,946	2,777	12,184,401
Revere	15	203,621	114,945	114	490,386
Salem	96	9,580,933	4,841,269	5,626	20,336,752
Somerville	125	34,577,948	5,680,779	5,425	50,714,935
Springfield	277	22,990,939	12,460,593	12,490	53,576,462
Taunton	76	5,532,571	2,992,431	3,616	12,591,276
Waltham	69	2,465,260	2,777,760	3,072	7,802,108
Westfield	45	2,300,714	1,124,297	1,300	5,190,479
Woburn	44	3,220,203	1,449,415	1,329	6,405,501
Worcester	474	42,400,314	22,352,991	23,160	96,543,047
316 Towns	1,488	185,557,054	85,754,779	98,226	379,649,379

¹ Includes the cotton processing tax.

The total value of products manufactured in the 39 cities in 1933 (\$1,289,084,008) constituted 77.2 per cent of the aggregate value (\$1,668,733,387) of all products manufactured in the Commonwealth in that year, and the average number of wage-earners (300,366) employed in the manufacturing industries in the 39 cities constituted 75.3 per cent of the average number of wage-earners (398,592) employed in all manufacturing establishments in the State. The total population of the 39 cities (as of April 1, 1930) was 2,940,335, constituting 69.2 per cent of the aggregate population (4,249,614) of the State in that year.

As a manufacturing center, Boston ranked first among the cities of the Commonwealth, and the value of the products manufactured in the city in 1933 was \$288,569,492, constituting 17.3 per cent of the aggregate value of all products manufactured in the entire State during the year. In order of importance, based on the value of products manufactured in 1933, the ten leading cities were: Boston, Cambridge, Worcester, Lawrence, Fall River, New Bedford, Springfield, Somerville, Lynn and Lowell.

Towns.—The total value of products manufactured in the 316 towns in 1933 (\$379,649,379) constituted 22.8 per cent of the aggregate value (\$1,668,733,387) of all products manufactured in the Commonwealth in that year, and the average number of wage-earners (98,226) in the manufacturing industries in the 316 towns constituted 24.6 per cent of the average number of wage-earners (398,592) employed in all manufacturing establishments in the State. The total population of the 316 towns (as of April 1, 1930) was 1,309,279, and these constituted 30.8 per cent of the aggregate population (4,249,614) of the State.

In order of importance, based on the value of products manufactured in 1933, the ten leading manufacturing towns were: Watertown, Walpole, Southbridge, Norwood, Andover, Braintree, Framingham, Easthampton, Uxbridge and West Springfield.

Table 23.—Principal Data Relative to Manufactures in the 316 Towns in Massachusetts, 1933

(Preliminary tabulation subject to minor correction)

TOWNS	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	8,145	\$800,611,332	\$354,523,624	398,592	\$1,668,733,387
39 Cities	6,657	615,054,278	268,768,845	300,366	1,289,084,008
316 Towns¹	1,488	185,557,054	85,754,779	98,226	379,649,379
Abington	11	1,156,054	537,831	612	2,378,260
Acton	7	638,692	146,416	162	1,127,666
Adams	19	2,277,503	1,852,110	2,617	5,448,952
Amesbury	22	1,998,764	1,224,641	1,464	4,593,507
Amherst	11	133,553	48,624	69	261,698
Andover	15	4,694,528	2,351,682	2,568	11,601,708
Arlington	22	281,780	109,347	108	574,313
Ashburnham	6	296,798	251,169	330	715,395
Athol	31	2,404,546	1,281,002	1,705	5,080,051
Ayer	8	21,470	27,269	28	75,974
Barnstable	5	31,850	29,375	32	144,425
Belmont	4	17,450	11,991	14	61,192
Billerica	7	2,089,856	1,074,028	1,037	3,563,701
Braintree	19	8,398,635	1,043,702	1,099	11,563,723
Bridgewater	12	2,980,336	907,150	1,129	4,578,087
Brookline	13	312,549	189,524	260	845,828
Canton	18	2,806,540	1,073,833	1,175	5,844,476
Chelmsford	8	339,875	537,175	525	1,748,893
Chester	3	99,562	81,404	80	330,094
Clinton	19	1,731,692	695,462	775	3,169,006
Concord	12	169,248	140,689	163	458,207
Danvers	18	683,404	665,926	653	2,726,372
Dedham	10	109,691	99,402	126	289,073
Deerfield	6	218,037	60,592	47	364,639
Dudley	9	2,264,322	1,100,909	1,412	3,986,025
East Bridgewater	5	154,063	116,180	121	533,005
Easthampton	16	6,574,970	1,511,138	1,842	9,702,527
Easton	9	734,927	414,070	499	1,918,061
Foxborough	6	409,463	496,711	414	1,945,823
Framingham	37	5,293,308	2,369,216	2,500	10,254,912
Franklin	19	1,966,728	777,963	846	3,640,458

¹ For 138 towns, data cannot be presented without disclosing the operation of individual establishments, and in 87 towns there were no manufacturing establishments coming within the scope of the census canvass; i. e., with product values in excess of \$5,000.

Table 23.—Continued

TOWNS	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Grafton	6	\$1,023,650	\$865,002	1,093	\$2,312,317
Great Barrington	10	684,358	513,179	607	1,956,829
Greenfield	30	998,320	912,801	993	3,518,957
Hingham	3	33,382	27,004	26	88,806
Holbrook	5	474,739	193,177	226	866,731
Hudson	19	2,134,984	1,765,374	2,290	5,576,297
Kingston	5	278,116	120,298	144	607,133
Leicester	4	107,841	51,767	57	221,070
Lexington	5	96,026	44,896	42	228,463
Manchester	5	17,577	23,278	18	71,723
Mansfield	13	901,394	399,312	443	1,693,796
Marblehead	12	147,558	106,631	148	251,628
Medway	5	367,715	275,478	337	950,353
Merrimac	5	158,636	109,622	136	361,254
Methuen	20	4,964,508	1,273,134	1,834	7,146,656
Middleborough	20	1,395,736	630,281	812	2,868,870
Milford	23	2,156,581	706,291	926	3,448,844
Millbury	20	2,028,534	797,720	827	3,993,053
Milton	7	95,995	40,753	34	258,111
Montague	13	1,211,124	817,039	1,005	3,087,520
Natick	19	1,314,699	466,172	441	2,390,603
Needham	24	962,252	297,962	350	1,927,497
North Andover	6	1,626,406	996,400	1,056	3,401,820
North Attleborough	52	1,333,514	1,319,989	1,468	4,162,194
North Brookfield	5	487,906	275,862	375	1,035,371
Northbridge	8	3,831,458	2,614,064	2,958	7,547,342
Norton	9	315,463	345,137	415	864,768
Norwood	21	5,655,713	2,373,502	2,181	13,113,464
Orange	18	640,255	448,383	613	2,113,668
Oxford	9	585,800	383,930	476	1,337,499
Palmer	16	1,744,981	1,181,085	1,532	4,563,415
Plymouth	16	3,050,047	1,206,502	1,369	6,504,987
Randolph	7	327,909	159,103	212	699,715
Reading	15	1,134,722	393,090	318	2,055,678
Rockland	13	1,823,521	852,163	1,105	3,710,911
Saugus	9	152,102	82,516	82	359,036
South Hadley	8	717,837	318,112	328	1,447,843
Southbridge	28	5,205,807	3,858,403	3,915	13,927,837
Spencer	12	2,910,253	1,116,957	1,384	4,844,433
Stoneham	19	495,353	316,529	404	1,238,441
Stoughton	23	3,208,112	1,076,604	1,285	5,984,908
Swampscott	8	68,464	21,261	25	129,925
Templeton	14	579,082	273,150	360	1,111,809
Townsend	4	287,261	154,895	170	524,884
Uxbridge	8	5,484,704	1,309,161	1,367	8,889,290
Wakefield	30	1,275,748	658,817	932	2,836,012
Walpole	13	9,333,089	1,561,486	1,496	14,029,044
Ware	15	1,605,509	757,526	1,041	3,274,754
Wareham	6	194,664	68,571	78	400,311
Warren	5	927,970	453,835	546	1,621,453
Watertown	46	6,347,957	4,478,267	4,589	16,843,952
Webster	18	3,893,296	1,738,111	2,420	7,238,012
Wellesley	8	433,184	167,045	123	1,529,569
West Springfield	27	3,700,702	1,830,607	1,782	7,874,305
Westborough	11	503,627	288,166	334	1,137,242
Weymouth	19	1,808,574	718,960	766	3,749,373
Whitman	19	2,834,765	1,390,722	1,412	5,418,540
Winchendon	18	994,126	620,688	876	2,276,727
Winchester	17	1,282,656	546,771	541	2,318,648
Winthrop	10	57,654	28,698	36	162,344
All other towns ¹	218	35,852,944	17,706,009	20,655	76,016,793

¹ For 138 towns, data cannot be presented without disclosing the operations of individual establishments, and in 87 towns there were no manufacturing establishments coming within the scope of the census canvass; i. e., with product values in excess of \$5,000.

Metropolitan Boston.—As defined for purposes of the annual census of manufactures in Massachusetts, "Metropolitan Boston" comprises 14 cities and 29 towns included within a radius of about 15 miles from the State House in Boston. Within this area in 1933 were located 3,962 manufacturing establishments, in which products valued at \$680,941,992 were manufactured. The average number of wage-earners employed in these establishments during the year was 116,145, and the total amount paid in wages was \$116,591,358. The number of manufacturing establishments in Metropolitan Boston in 1933 constituted 48.6 per cent of the total number (8,145) in the entire State; the value of all products manufactured constituted 40.8 per cent of the total value of all products manufactured

in the State; and the number of wage-earners was a little over 29 per cent of the total number employed in all manufacturing establishments in that year.

Principal data relative to manufactures in Metropolitan Boston for the years 1923 to 1933, inclusive, are presented in Table 24; for each of the 14 cities and 29 towns, in Table 25; and for the leading industries in Table 26.

Table 24.—Principal Data Relative to Manufactures in Metropolitan Boston,¹ 1923-1933

ALL INDUSTRIES

YEARS	Number of Establishments	Capital Invested	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
1923	4,740	2	\$620,031,648	\$245,640,825	193,000	\$1,232,206,787
1924	4,561	\$849,235,200	584,512,038	230,727,844	178,487	1,148,260,013
1925	4,511	2	606,378,433	231,857,192	175,801	1,235,875,285
1926	4,577	851,797,589	639,566,767	245,916,443	184,814	1,272,959,199
1927	4,755	2	633,003,950	237,708,229	178,316	1,289,801,723
1928	4,713	897,124,478	648,665,366	235,017,427	174,522	1,278,895,983
1929 ¹	4,831	2	683,277,589	248,419,990	182,780	1,409,136,706
1930	4,652	866,181,625	590,738,808	215,334,364	162,699	1,181,391,542
1931	4,536	2	452,641,062	171,567,144	140,074	955,211,023
1932	4,225	674,095,448	337,019,811	124,855,342	114,986	704,875,376
1933	3,962	2	324,572,258	116,591,358	116,145	680,941,992

¹ For a list of cities and towns in Metropolitan Boston, see Table 25. In 1929 and thereafter, the towns of Norwood, Stoughton, and Walpole were included in this District.

² Not called for on the questionnaire.

Table 25.—Principal Data Relative to Manufactures in Metropolitan Boston, 1933: By Cities and Towns

MUNICIPALITIES	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Metropolitan Boston	3,962	\$324,572,258	\$116,591,358	116,145	\$680,941,992
The 14 Cities	3,591	280,080,683	101,135,239	100,048	594,563,451
Boston	2,144	136,504,250	48,967,876	46,823	288,569,492
Cambridge	342	34,853,253	14,102,984	15,095	97,931,556
Chelsea	102	7,058,557	3,739,933	4,002	14,951,885
Everett	97	24,046,942	4,458,489	3,760	37,971,978
Lynn	304	18,263,835	11,601,453	12,275	47,340,476
Malden	93	7,785,448	2,238,414	2,510	16,012,844
Medford	49	2,660,301	810,337	804	5,078,898
Melrose	19	404,685	234,022	214	929,979
Newton	61	3,488,931	1,560,886	1,848	8,179,012
Quincy	127	4,488,295	3,397,946	2,777	12,184,401
Revere	15	203,621	114,945	114	490,386
Somerville	125	34,577,948	5,680,779	5,425	50,714,935
Waltham	69	2,464,414	2,777,760	3,072	7,802,108
Woburn	44	3,220,203	1,449,415	1,329	6,405,501
The 29 Towns	371	44,491,575	15,456,119	16,097	86,578,541
Arlington	22	281,780	109,347	108	574,313
Belmont	4	17,450	11,991	14	61,192
Braintree	19	8,398,635	1,043,702	1,099	11,563,723
Brookline	13	312,549	189,524	260	845,828
Canton	18	2,806,540	1,073,833	1,175	5,844,476
Dedham	10	109,691	99,402	126	289,073
Hingham	3	33,382	27,004	26	88,806
Lexington	5	96,026	44,896	42	228,463
Milton	7	95,995	40,753	34	258,111
Needham	24	962,252	297,962	350	1,927,497
Norwood	21	5,655,713	2,373,502	2,181	13,113,464
Reading	15	1,134,722	393,090	318	2,055,678
Saugus	9	152,102	82,516	82	359,036
Stoneham	19	495,353	316,529	404	1,238,441
Stoughton	23	3,208,112	1,076,604	1,285	5,984,908
Swampscott	8	68,464	21,261	25	129,925
Wakefield	30	1,275,748	658,817	932	2,836,012
Walpole	13	9,333,089	1,561,486	1,496	14,029,044
Watertown	46	6,347,957	4,478,267	4,589	16,843,952
Wellesley	8	433,184	167,045	123	1,529,569
Weymouth	19	1,808,574	718,960	766	3,749,373
Winchester	17	1,282,656	546,771	541	2,318,648
Winthrop	10	57,654	28,698	36	162,344
6 other towns ¹	8	123,947	94,159	85	346,665

¹ Includes two towns (Cohasset and Nahant) in which there were no manufacturing establishments, and four towns (Dover, Hull, Weston, and Westwood) for which data cannot be shown separately without disclosing the operations of individual establishments.

Table 26.—Principal Data Relative to the Leading Manufacturing Industries in Metropolitan Boston, 1933

PRINCIPAL INDUSTRIES (Arranged in the order of value of products)	Number of Estab- lish- ments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
Metropolitan Boston	3,962	\$324,572,258	\$116,591,358	116,145	\$680,941,992
Printing and publishing	511	13,247,102	11,577,234	7,839	61,708,401
Bread and other bakery products	453	16,459,671	7,442,367	6,792	35,777,942
Clothing:					
Men's ¹	330	18,231,371	6,703,876	7,775	34,596,008
Women's	129	8,883,666	3,445,505	3,971	17,321,353
Boots and shoes, other than rubber	201	9,347,705	3,258,371	3,804	17,274,655
Meat packing, wholesale	114	16,986,358	10,293,929	12,889	34,567,595
Electrical machinery, apparatus and supplies	19	19,894,379	2,123,394	1,902	26,059,199
Confectionery	44	6,528,233	5,190,783	5,090	22,364,242
Rubber goods, other than tires, inner tubes, and boots and shoes	86	11,092,344	3,819,024	5,360	20,485,309
Foundry and machine-shop products, not elsewhere classified	33	8,360,235	3,295,863	3,604	17,318,184
Boot and shoe cut stock and findings, not made in boot and shoe factories	141	5,383,705	4,133,391	3,766	16,293,270
Leather: Tanned, curried, and finished	108	10,777,950	1,834,402	2,075	16,161,818
Knit goods	33	7,488,395	3,317,931	3,041	13,952,138
Boxes, paper	42	7,094,308	2,100,408	2,976	13,070,516
Dyeing and finishing textiles	45	7,133,818	2,219,868	2,589	12,716,178
Other industries ²	20	7,886,062	971,965	1,082	11,437,133
	1,983	168,008,327	51,566,923	49,365	344,434,059

¹ Includes work clothing.² Includes data for all industries for which the value of products in 1933 was less than \$10,000,000 as well as the industries, Soap; sugar refining; petroleum refining; rubber boots and shoes; and motor vehicles, the data for which cannot be given separately without disclosing the operations of individual establishments.

Counties.—Principal data having reference to manufactures in each of the counties of the State in 1933 are presented in Table 27. Based on the value of products, Middlesex County ranked first among the counties with value of products amounting to \$350,055,253, or nearly 21 per cent of the total for the State. Suffolk County was a close second, with value of products amounting to \$304,174,107, or 18.2 per cent. The other counties in order of rank were: Essex, Worcester, Bristol, Hampden, Norfolk, Plymouth, Berkshire, Hampshire, Franklin, Barnstable, Nantucket and Dukes.

Table 27.—Principal Data Relative to the Manufacturing Industries in Massachusetts—By Counties, 1933

COUNTIES	Number of Estab- lish- ments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
The State	8,145	\$800,611,332	\$354,523,624	398,592	\$1,668,733,387
Barnstable	21	170,652	75,375	91	398,092
Berkshire	151	21,146,392	11,419,814	13,514	46,899,865
Bristol	725	79,343,101	43,272,178	58,511	160,965,414
Dukes	1	1	1	1	1
Essex	1,159	121,157,576	60,108,645	67,930	254,282,412
Franklin	87	4,862,115	2,913,922	3,467	12,871,672
Hampden	569	62,234,001	31,786,513	34,845	139,583,283
Hampshire	110	11,171,952	4,392,529	5,376	20,874,566
Middlesex	1,337	172,608,527	62,563,009	68,780	350,055,253
Nantucket and Dukes ¹	6	35,814	40,697	26	125,457
Norfolk	370	44,700,777	15,199,812	15,145	86,051,631
Plymouth	330	32,435,124	14,185,250	16,452	63,482,037
Suffolk	2,271	144,018,355	52,851,452	50,976	304,174,107
Worcester	1,009	106,726,946	55,714,428	63,479	228,969,598

¹ Two establishments located in Dukes County are included with Nantucket County in order to avoid disclosing the operations of individual concerns.

Principal Industries.—A summary of the data relative to the principal manufacturing industries in Massachusetts in 1933, arranged in the order of value of products in 1933, is presented in Table 28. The total value of products of the

16 principal industries specified was \$950,231,707, and constituted 56.9 per cent of the aggregate value of all products (\$1,668,733,387) manufactured in Massachusetts during the year. Comparable data for each of these principal industries for a series of years, 1923 to 1933, inclusive, are presented in Table 28.

Table 28.—Summary of Data Relative to Manufactures in Massachusetts:
By Principal Industries, 1923-1933¹

YEARS	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
<i>All Industries</i>					
1923	10,519	\$1,835,218,349	\$799,363,111	667,443	\$3,570,543,265
1924	10,174	1,629,342,134	711,812,104	589,364	3,126,137,145
1925	10,027	1,794,643,051	716,155,593	591,438	3,426,617,326
1926	9,903	1,790,611,294	738,208,510	602,343	3,419,814,877
1927	10,037	1,678,812,411	705,929,549	578,068	3,317,851,888
1928	9,971	1,663,155,564	670,063,291	540,927	3,224,227,651
1929	9,872	1,681,432,788	694,805,312	557,494	3,392,162,237
1930	9,586	1,333,317,227	573,838,044	481,449	2,676,387,256
1931	9,305	1,015,093,739	474,189,202	434,441	2,157,450,449
1932	8,778	718,347,675	334,358,550	350,521	1,521,752,939
1933	8,145	800,611,332	354,523,624	398,592	1,668,733,387
<i>Woolen and Worsted Goods</i>					
1923	186	202,207,973	76,189,812	64,842	352,136,045
1924	190	171,426,748	65,563,390	54,277	280,002,109
1925	187	200,289,254	64,931,507	54,876	309,528,290
1926	180	187,787,996	61,952,399	54,638	295,175,084
1927	174	163,149,995	58,035,387	51,064	268,835,806
1928	171	145,440,485	51,882,279	45,248	234,206,586
1929	156	146,020,898	52,304,583	45,673	242,898,460
1930	145	92,027,443	39,245,500	35,104	156,943,782
1931	128	86,659,519	37,436,905	37,221	147,701,378
1932	116	49,305,061	22,708,245	28,593	87,814,050
1933	111	81,395,142	33,072,129	39,808	148,798,542
<i>Boots and Shoes, Other than Rubber</i>					
1923	595	146,720,772	82,916,416	69,397	290,674,403
1924	567	120,976,254	72,462,742	62,969	246,897,275
1925	537	119,764,801	65,496,971	57,405	240,943,504
1926	508	121,665,003	70,444,841	59,738	244,177,601
1927	469	120,353,570	65,282,193	55,986	237,516,655
1928	453	126,778,246	63,871,277	55,478	238,884,158
1929	436	124,024,880	64,205,152	55,093	241,587,864
1930	420	95,336,095	50,896,764	49,105	185,072,323
1931	397	79,519,951	45,679,225	47,664	160,666,398
1932	392	60,709,609	36,843,238	43,265	126,222,124
1933	389	65,591,230	36,559,127	46,739	128,073,952
<i>Boot and Shoe Cut Stock and Findings (Not made in boot and shoe factories)</i>					
1923	417	47,772,107	7,921,949	7,349	68,839,110
1924	381	42,123,956	7,269,733	6,536	60,337,334
1925	407	45,012,775	7,995,409	6,991	66,077,971
1926	361	52,775,368	8,973,187	7,806	73,795,554
1927	393	60,126,412	8,830,087	7,763	84,124,051
1928	364	63,242,637	8,286,694	7,615	83,979,422
1929	361	56,167,055	8,391,863	7,658	78,200,992
1930	349	42,855,725	7,259,574	6,917	59,345,418
1931	351	31,775,145	6,363,401	6,463	46,348,503
1932	334	22,829,247	5,161,390	5,817	35,280,809
1933	306	23,322,043	5,827,882	6,989	38,394,504
<i>Cotton Goods, excluding Cotton Small Wares</i>					
1923	191	223,569,567	115,080,841	113,707	415,922,838
1924	178	175,089,768	86,795,081	89,095	296,831,284
1925	178	200,972,528	91,812,779	96,182	345,864,097
1926	173	166,821,709	88,865,550	91,466	292,063,441
1927	163	145,630,938	88,089,667	90,875	284,706,007
1928	153	120,815,771	61,215,058	65,192	216,997,848
1929	135	125,441,636	65,556,859	70,788	233,618,009
1930	134	79,531,622	47,363,957	53,745	151,834,379
1931	120	53,329,684	38,868,889	46,990	114,707,445
1932	105	30,030,280	22,698,692	32,464	68,040,258
1933	103	51,189,247	31,110,036	45,418	98,602,761

¹ In making comparisons for the several years of the money values presented in this summary, due allowance should be made for price fluctuations from year to year. The values of products manufactured do not necessarily represent the relative volume of goods produced in the several years.

Table 28.—Continued

YEARS	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
<i>Printing and Publishing</i>					
1923	917 ¹	\$33,835,083	\$23,289,201	14,238	\$117,436,792
1924	756	30,323,839	23,701,120	13,908	93,698,513
1925	951 ¹	34,561,352	24,609,306	14,231	125,176,183
1926	748	34,035,042	25,436,679	14,713	107,283,046
1927	1,022 ¹	35,368,221	25,482,123	14,382	131,975,238
1928	821	34,795,664	26,594,305	14,634	112,243,252
1929	1,000 ¹	35,245,669	28,115,167	15,198	140,481,332
1930	799	32,050,850	27,077,682	15,051	111,526,885
1931	963 ¹	26,416,073	23,456,179	13,224	111,395,181
1932	767	20,617,212	19,667,336	12,022	77,732,521
1933	829 ¹	17,238,002	16,336,090	11,359	81,164,261
<i>Bread and Other Bakery Products</i>					
1923	1,099	32,379,305	11,974,120	9,288	64,733,168
1924	1,072	32,793,242	12,022,863	9,200	65,723,363
1925	1,031	36,517,214	11,390,333	8,429	68,845,944
1926	1,090	38,573,698	11,558,473	8,697	74,014,253
1927	1,044	37,101,802	11,028,342	8,473	73,706,221
1928	1,108	38,297,898	11,351,600	8,770	76,006,262
1929	1,077	39,664,130	13,700,195	10,413	80,270,302
1930	1,132	36,656,100	13,036,847	10,041	78,462,469
1931	1,119	29,587,755	12,753,731	10,079	67,805,420
1932	1,111	25,236,168	10,643,686	9,315	59,488,548
1933	1,021	25,972,865	11,907,157	10,797	55,568,784
<i>Dyeing and Finishing Textiles</i>					
1923	75	59,282,801	16,099,333	14,074	101,824,142
1924	66	47,812,253	14,145,036	12,764	76,968,958
1925	65	87,585,678	16,098,858	13,872	119,109,701
1926	65	69,357,890	15,974,822	13,772	102,814,471
1927	68	51,434,428	16,229,352	13,826	84,459,666
1928	66	52,048,921	15,738,360	13,629	83,707,199
1929	67	53,034,427	16,853,664	14,450	93,148,770
1930	65	50,849,268	14,838,020	13,081	75,853,910
1931	70	47,794,925	14,926,387	13,060	76,819,045
1932	71	34,010,823	10,377,674	11,118	54,353,966
1933	65	32,488,442	10,366,906	11,178	54,714,526
<i>Electrical Machinery, Apparatus, and Supplies</i>					
1923	130	43,889,975	34,482,705	26,350	117,575,926
1924	130	48,721,722	33,227,577	24,523	129,905,665
1925	116	43,794,331	35,109,393	25,065	147,056,901
1926	128	64,534,132	39,142,134	27,899	177,148,280
1927	122	42,197,890	33,903,793	24,759	139,348,725
1928	120	56,874,825	33,972,583	24,788	156,081,762
1929	106	64,323,352	41,011,734	28,844	184,786,944
1930	111	45,095,735	31,948,815	24,217	120,334,662
1931 ²	102	31,777,549	22,751,703	20,055	104,325,847
1932 ²	103	18,228,170	12,254,949	13,571	53,643,578
1933 ²	84	19,586,736	13,263,342	14,285	52,628,350
<i>Leather, Tanned, Curried, and Finished</i>					
1923	122	40,439,335	15,340,403	11,437	71,098,478
1924	123	42,867,178	15,023,961	11,010	70,603,298
1925	118	42,430,939	14,178,183	10,438	70,708,050
1926	123	40,698,690	14,016,402	10,241	66,600,352
1927	115	47,860,959	14,587,638	10,768	77,649,457
1928	124	53,764,692	14,531,789	10,975	82,268,326
1929	113	60,240,934	14,206,501	10,707	88,348,403
1930	107	41,890,582	11,645,166	8,953	63,591,977
1931	98	29,966,431	10,697,504	8,657	50,051,338
1932	101	19,253,879	8,651,070	7,932	35,608,824
1933	100	27,193,279	11,077,713	9,980	48,630,000
<i>Clothing, Men's and Women's, including Work Clothing</i>					
1923	511	38,703,840	14,981,950	12,727	70,819,700
1924	486	34,899,421	13,405,639	11,549	63,904,828
1925	439	33,158,905	12,023,478	10,665	61,187,773
1926	483	36,284,848	14,263,815	12,115	68,554,055
1927	472	37,713,123	15,131,382	13,163	72,296,723
1928	500	37,057,769	14,354,468	13,310	69,021,128
1929	500	41,841,471	15,087,955	13,174	78,174,045
1930	489	35,613,636	14,398,266	13,540	65,951,764
1931	487	31,017,083	13,216,215	14,052	59,920,324
1932	474	23,706,198	9,564,654	11,874	44,324,186
1933	412	25,706,754	9,503,081	12,612	47,726,650

¹ The census for the years 1923, 1925, 1927, 1929, 1931, and 1933 included certain publishing establishments not canvassed in the other years specified, and data for these years, therefore, are not strictly comparable with corresponding data for the other years specified.

² Includes radio apparatus, heretofore tabulated with this industry and retained here for purposes of comparison. In 1933, radio apparatus included 11 establishments with product value of \$4,669,363.

Table 28.—Continued

YEARS	Number of Establishments	Value of Stock and Materials Used	Amount of Wages Paid during the Year	Average Number of Wage-earners Employed	Value of Products
<i>Paper and Wood Pulp</i>					
1923	82	\$57,601,310	\$17,085,424	13,324	\$93,641,621
1924	81	53,194,877	17,047,879	13,423	90,146,594
1925	84	54,854,405	16,424,005	12,915	90,126,831
1926	83	56,818,516	17,467,461	13,205	98,598,943
1927	83	51,815,477	15,904,292	12,368	93,177,974
1928	84	53,105,186	16,420,703	12,602	93,939,888
1929	76	50,091,469	16,648,893	12,361	95,084,573
1930	76	41,204,938	14,881,473	11,603	78,339,273
1931	77	27,898,672	11,960,645	10,652	58,148,375
1932	75	19,304,723	8,901,610	9,382	39,335,415
1933	68	19,193,695	8,212,224	9,513	40,577,557
<i>Foundry and Machine-Shop Products</i>					
1923	553	38,728,025	36,267,289	24,660	114,929,133
1924	539	37,993,215	32,473,734	22,414	106,461,283
1925	500	31,046,164	28,919,791	19,541	90,638,434
1926	502	34,479,344	30,851,687	20,419	99,321,009
1927	496	30,759,703	30,059,274	19,898	94,149,409
1928	475	32,606,432	30,447,463	19,803	99,613,068
1929	465	36,893,962	32,969,609	21,243	114,965,036
1930	442	28,219,034	27,582,822	18,492	88,162,402
1931	414	17,806,400	18,841,627	14,748	60,143,267
1932	388	11,685,917	12,556,361	10,179	36,472,363
1933	335	11,043,569	12,084,953	11,022	38,524,134
<i>Rubber Goods, including Rubber Tires and Inner Tubes¹</i>					
1923	59	48,409,783	14,698,488	11,388	84,098,920
1924	58	47,010,344	13,393,684	10,406	84,681,207
1925	52	61,611,753	13,904,175	10,740	108,594,705
1926	56	71,670,965	13,648,767	10,444	110,305,176
1927	64	56,715,715	13,298,241	10,364	97,717,724
1928	68	53,136,600	13,714,866	10,552	89,672,751
1929	62	44,604,202	12,400,228	9,764	76,439,857
1930	65	33,032,734	10,459,597	8,658	62,870,682
1931	60	19,928,837	7,758,324	6,728	46,371,115
1932	58	14,840,426	5,778,272	6,347	33,351,480
1933	56	17,518,009	6,203,983	6,844	35,953,802
<i>Meat Packing, Wholesale</i>					
1923	33	47,128,857	4,604,972	3,651	56,765,176
1924	32	46,832,366	4,679,275	3,506	56,799,375
1925	33	52,620,735	4,121,768	3,292	60,710,531
1926	28	54,604,670	3,759,969	3,000	63,220,783
1927	40	51,139,522	4,127,491	3,191	58,796,506
1928	37	54,604,066	3,855,033	2,988	63,509,485
1929	33	56,599,409	3,572,432	2,594	64,354,688
1930	31	51,030,796	3,435,693	2,530	59,425,738
1931	31	32,764,048	2,871,319	2,123	39,704,308
1932	29	22,994,226	2,547,086	2,165	29,408,410
1933	26	22,727,714	2,555,707	2,358	30,181,196
<i>Knit Goods</i>					
1923	87	25,923,485	10,605,684	11,652	46,834,545
1924	88	20,450,911	9,443,959	9,863	38,487,391
1925	88	25,902,556	9,715,424	10,551	46,386,519
1926	92	22,362,814	9,512,858	10,088	44,060,059
1927	93	22,315,903	9,339,035	9,660	43,936,724
1928	90	21,070,158	9,162,848	9,092	40,165,755
1929	86	20,401,873	8,945,286	8,817	41,050,135
1930	80	16,981,448	7,878,614	8,133	34,479,056
1931	70	14,997,853	6,765,890	7,637	29,460,966
1932	66	11,560,929	5,306,107	6,772	22,160,166
1933	70	13,398,553	5,524,729	7,680	25,549,661
<i>Textile Machinery and Parts</i>					
1923	137	24,518,360	24,318,310	18,668	69,343,009
1924	129	14,986,290	18,352,490	14,666	50,253,757
1925	123	16,584,208	17,769,454	13,687	51,411,150
1926	130	15,333,814	16,786,043	12,623	47,739,905
1927	119	15,008,418	16,242,087	12,009	46,865,937
1928	119	12,350,981	13,651,765	10,399	39,082,682
1929	111	12,467,673	14,233,661	10,597	41,202,970
1930	109	8,423,447	10,512,566	8,602	27,033,415
1931	102	6,791,520	8,865,356	7,527	24,090,354
1932	101	4,197,545	5,153,252	5,197	13,635,758
1933	99	7,477,918	7,987,840	7,972	25,143,027

¹ Exclusive of rubber boots and shoes.

CHARTS

Plate 1

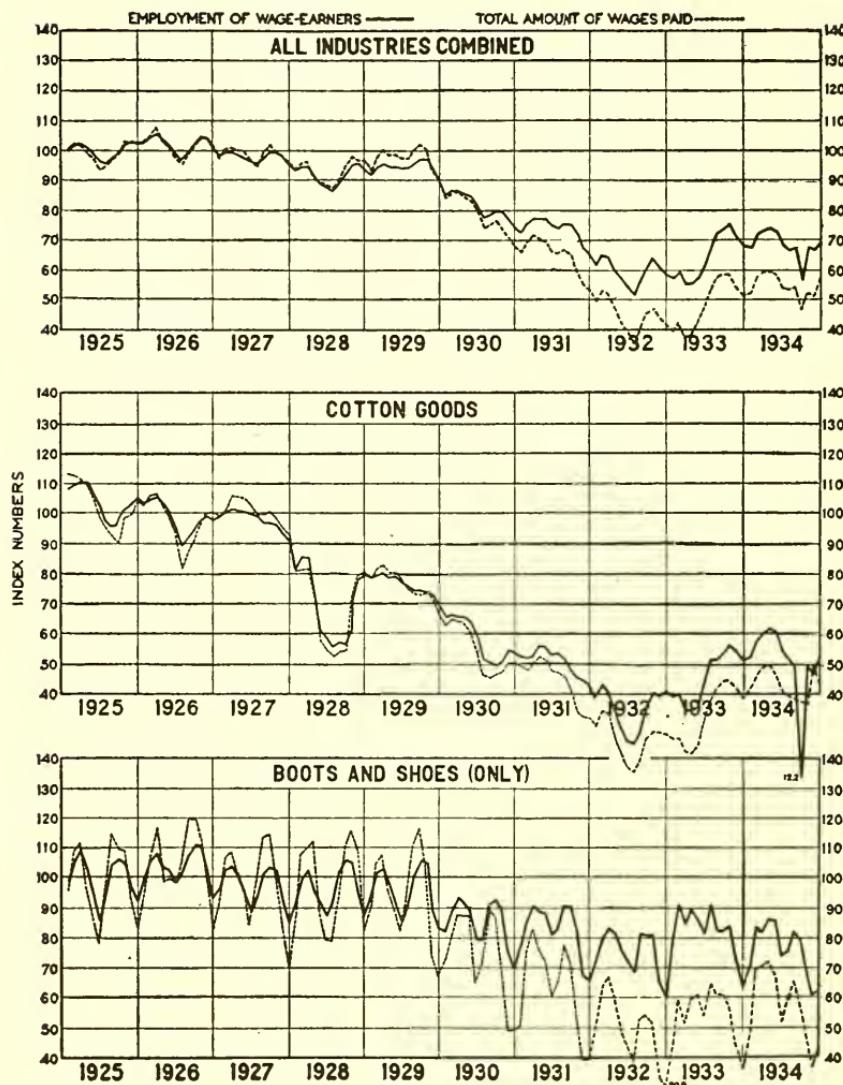
TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN
MANUFACTURING IN MASSACHUSETTS, 1925-1934

Plate 2

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925-1934 (Continued)

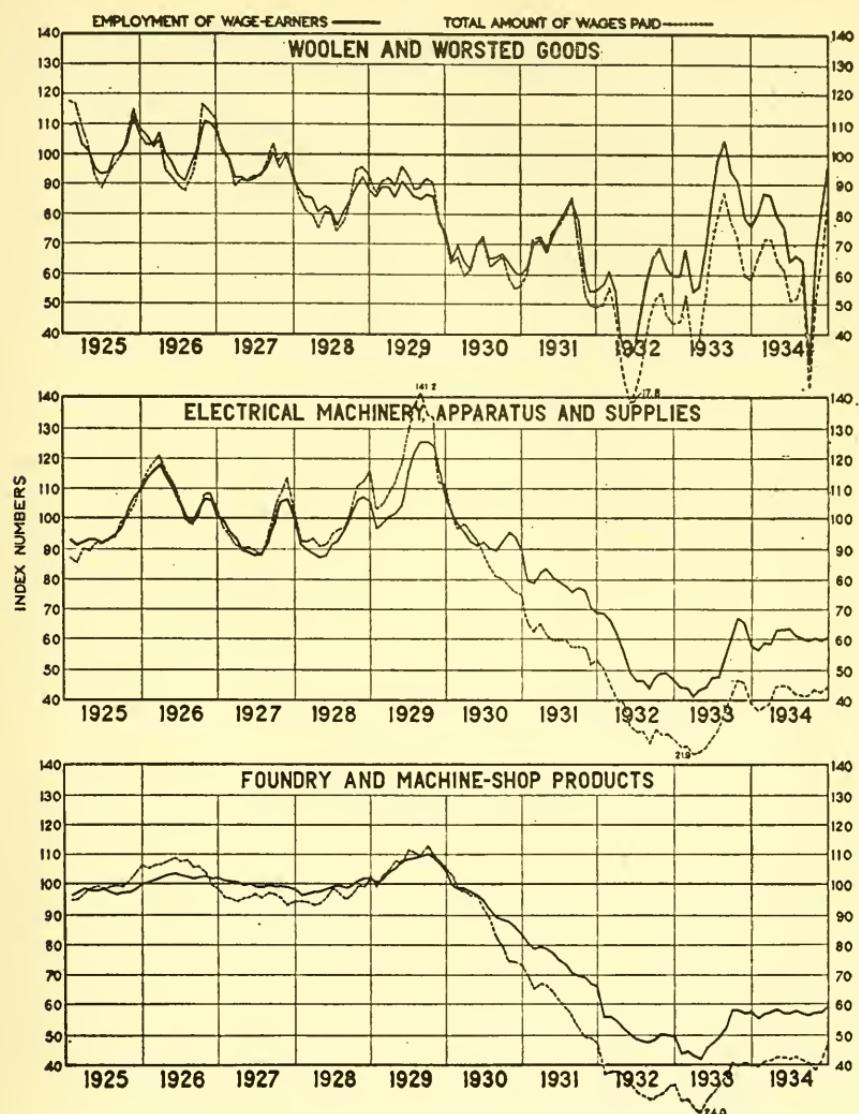


Plate 3

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925-1934 (Continued)

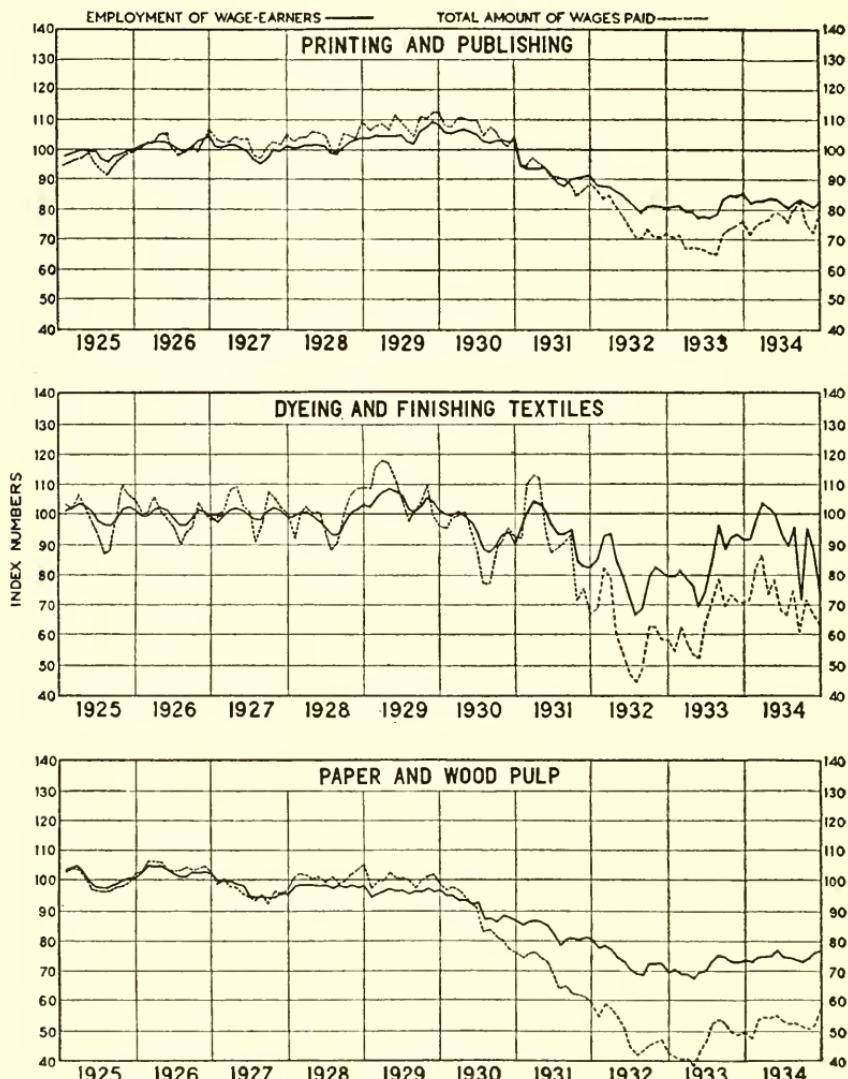


Plate 4

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925-1934 (Continued)

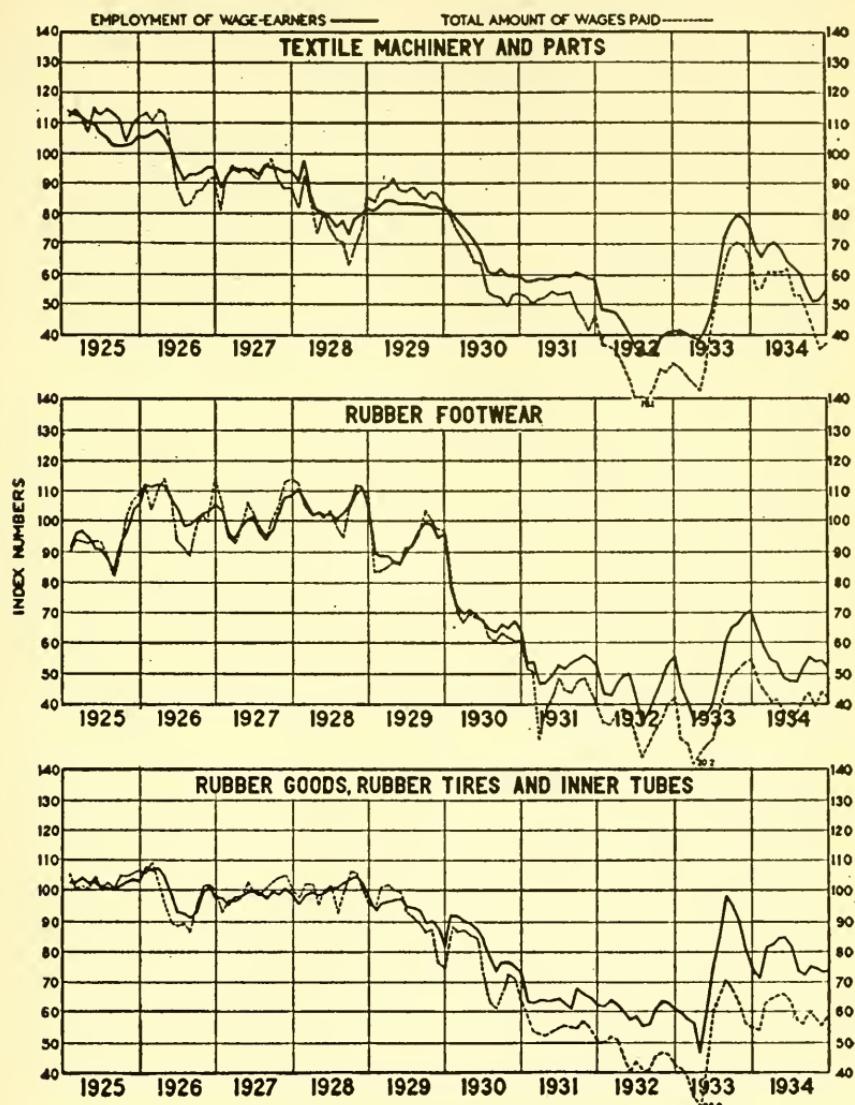


Plate 5

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925-1934 (Continued)

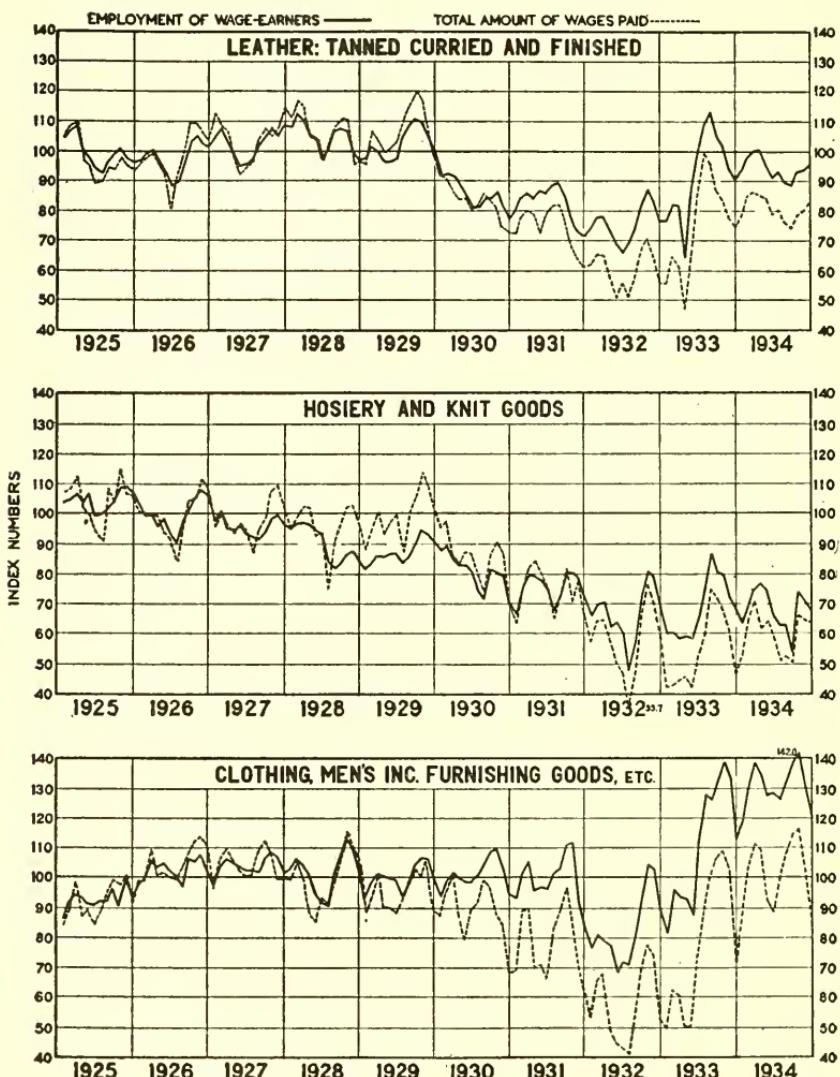


Plate 6

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925-1934 (Continued)

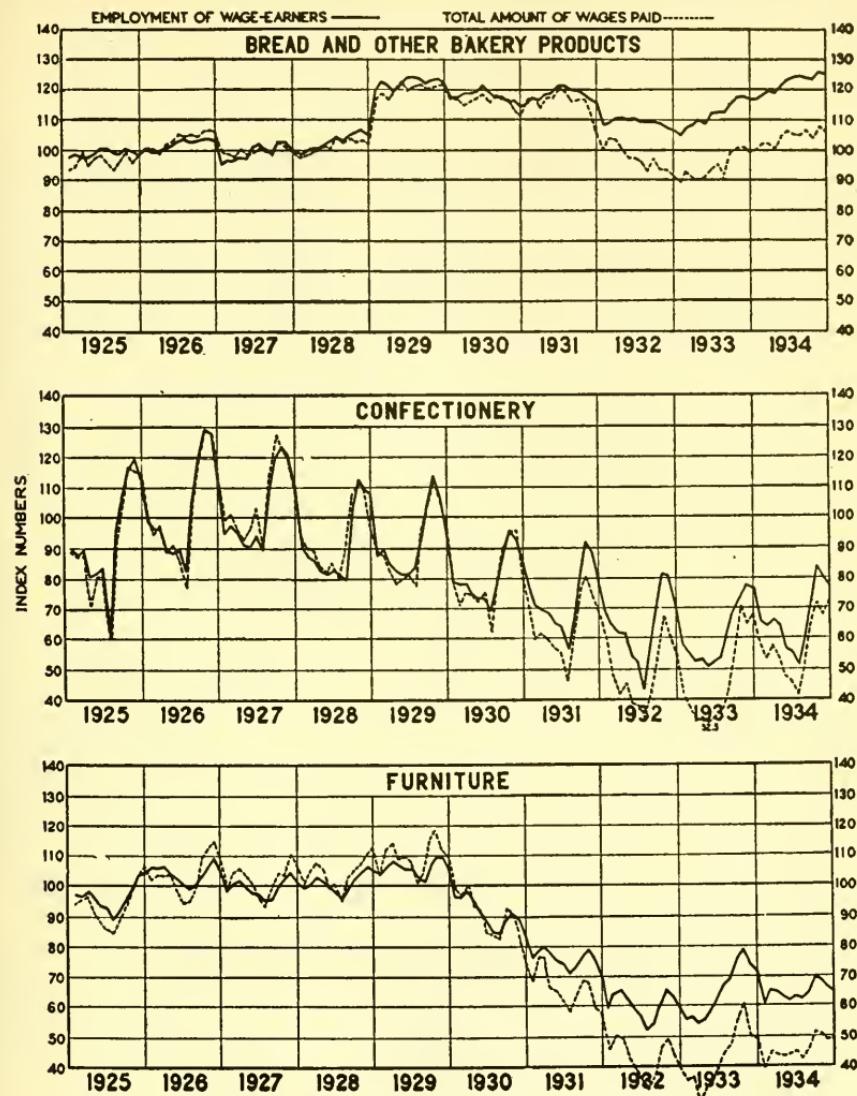


Plate 7

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN MANUFACTURING IN MASSACHUSETTS, 1925-1934 (Concluded)

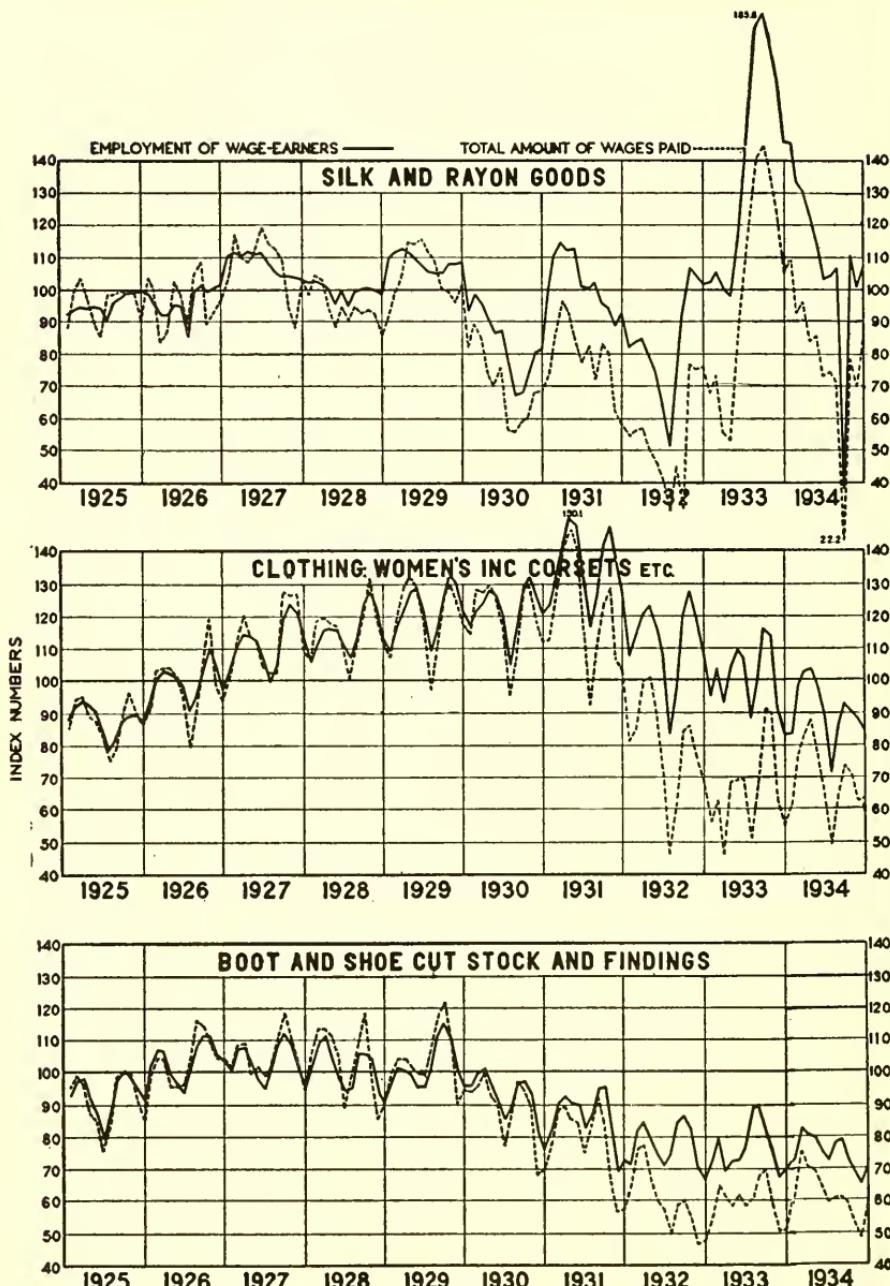


Plate 8

TREND OF EMPLOYMENT AND OF TOTAL AMOUNT PAID IN WAGES IN MANUFACTURING IN 15 LEADING INDUSTRIAL CITIES IN MASSACHUSETTS, 1933-1934

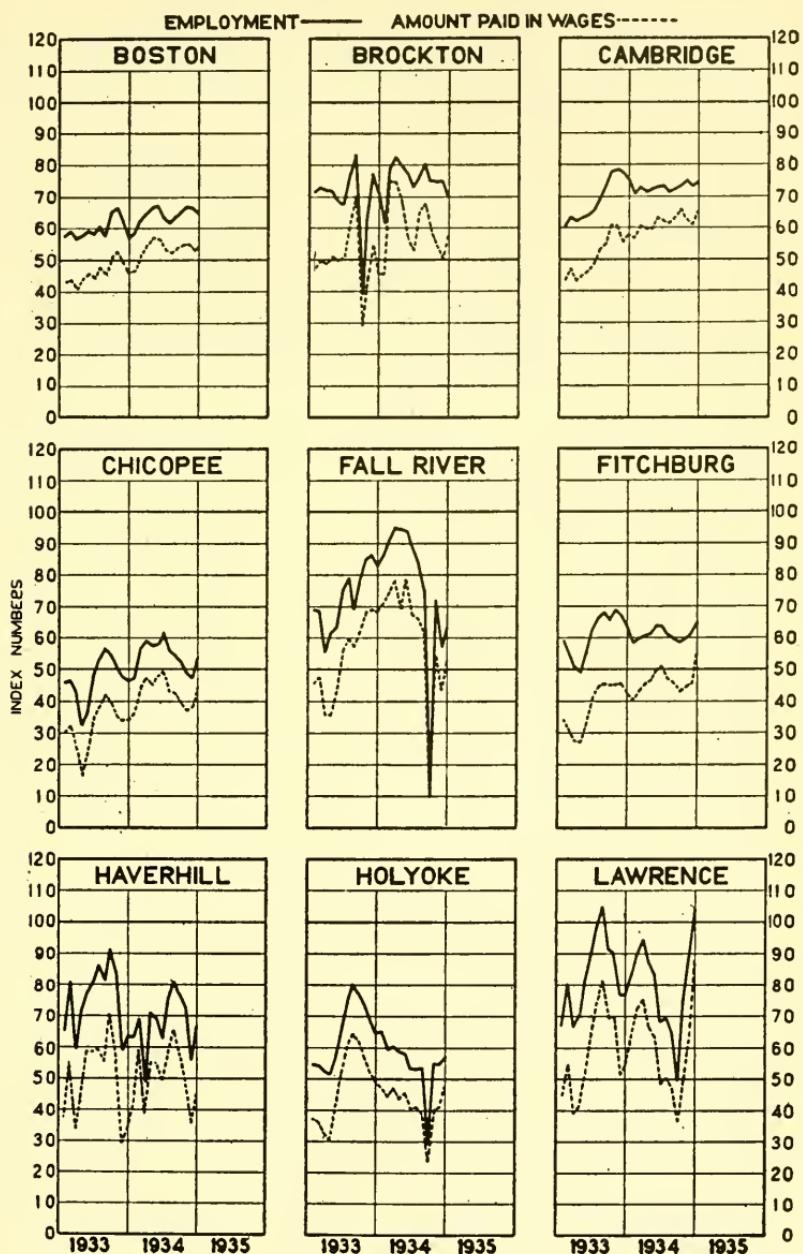


Plate 9

TREND OF EMPLOYMENT AND OF TOTAL AMOUNT PAID IN WAGES IN MANUFACTURING IN 15 LEADING INDUSTRIAL CITIES IN MASSACHUSETTS, 1933-1934 (Concluded)

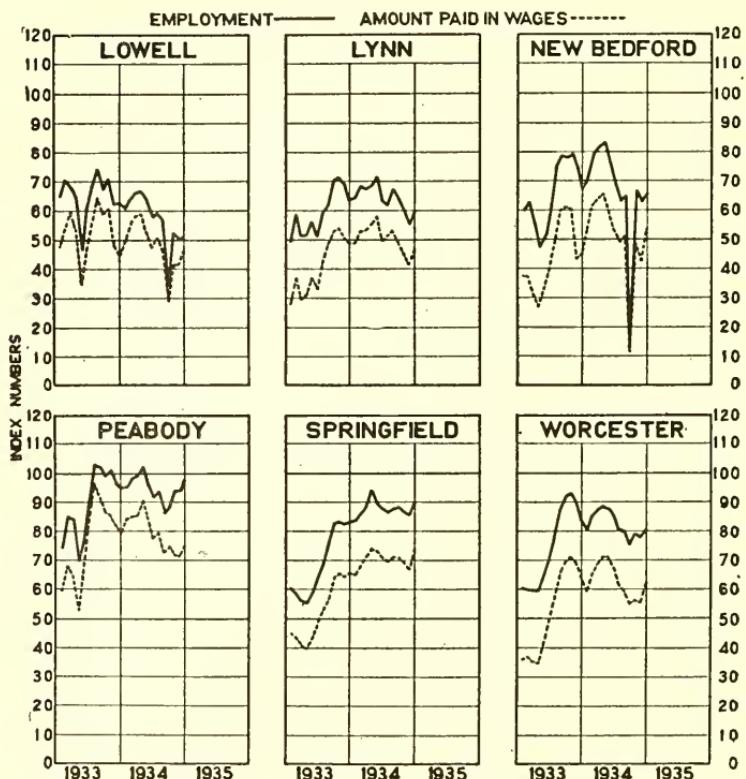
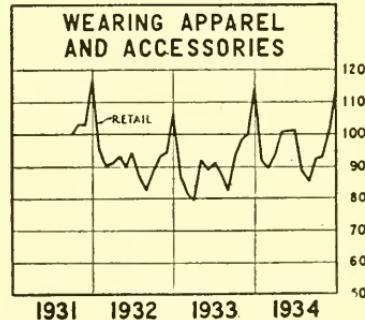
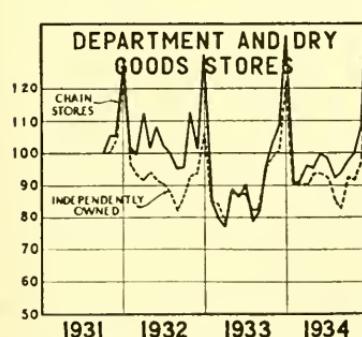
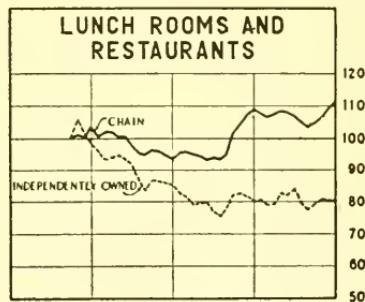
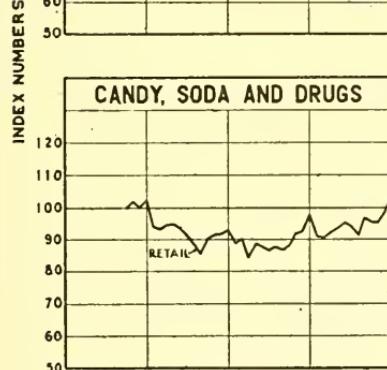
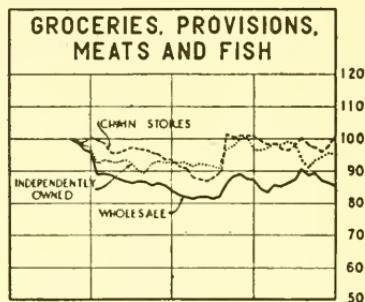
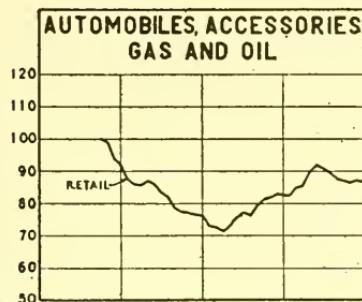
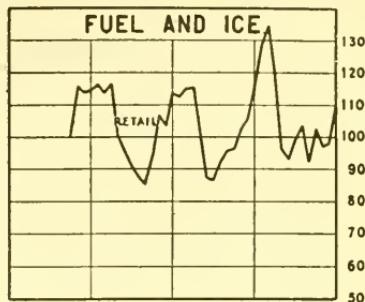
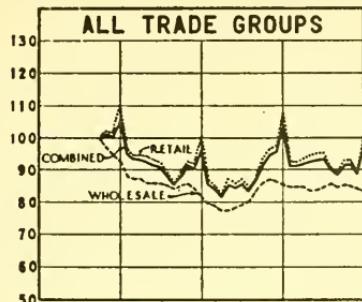


Plate 10

TREND OF EMPLOYMENT IN WHOLESALE AND RETAIL TRADE
IN MASSACHUSETTS, SEPTEMBER, 1931-DECEMBER, 1934

1931 1932 1933 1934

Plate 11

TREND OF TOTAL WAGES PAID IN WHOLESALE AND RETAIL
TRADE IN MASSACHUSETTS, SEPTEMBER, 1931-
DECEMBER, 1934

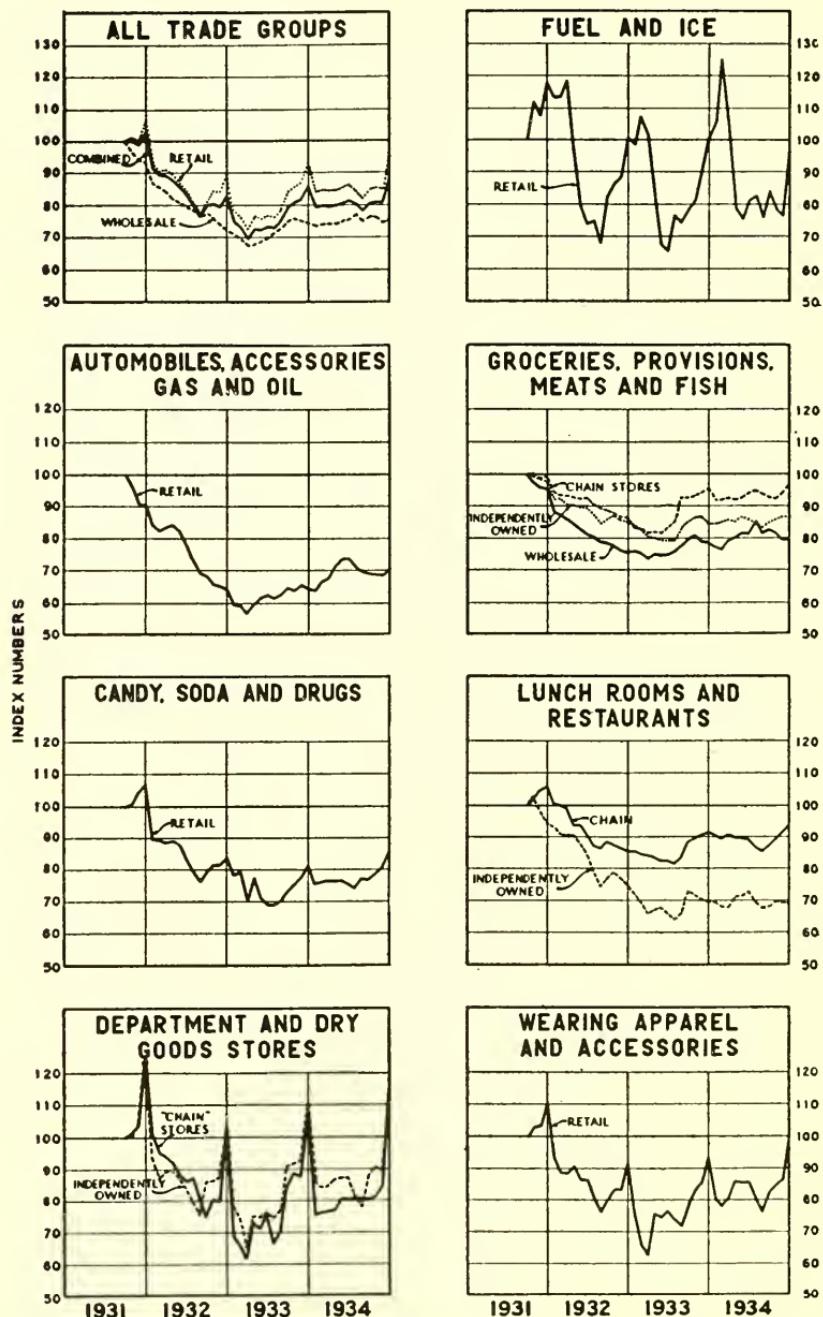


Plate 12

TREND OF EMPLOYMENT, OF TOTAL WAGES PAID, AND OF MAN HOURS WORKED IN BUILDING CONSTRUCTION IN MASSACHUSETTS, APRIL, 1927-DECEMBER, 1934

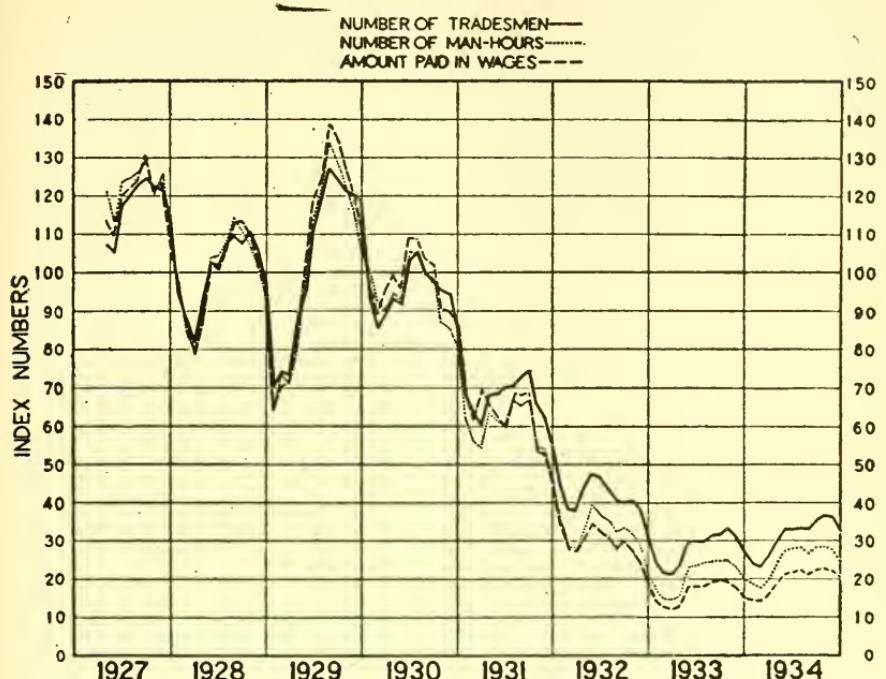


Plate 13

TREND OF PROSPECTIVE BUILDING IN 55 MUNICIPALITIES IN MASSACHUSETTS, ALL CLASSES OF PROJECTS COMBINED: BY MONTHS, 1927-1934

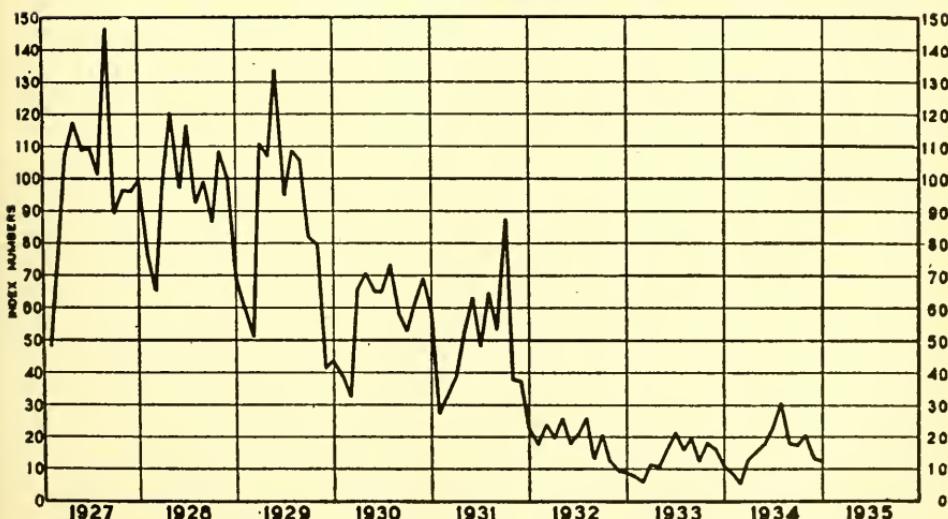


Plate 14

TREND OF EMPLOYMENT AND OF TOTAL WAGES PAID IN PUBLIC UTILITIES IN MASSACHUSETTS, 1930-1934

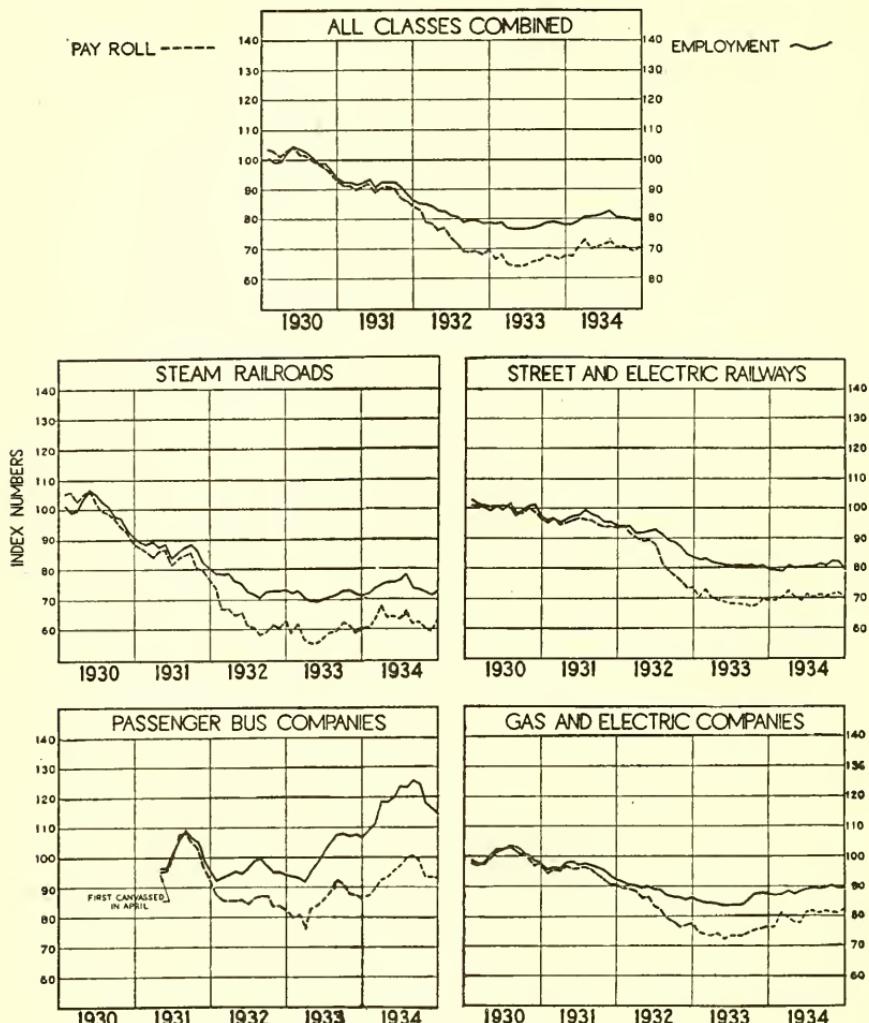


Plate 15

**TREND OF EMPLOYMENT AND OF AMOUNT PAID IN WAGES
IN MUNICIPALITIES IN MASSACHUSETTS,
SEPTEMBER, 1931-DECEMBER, 1934**

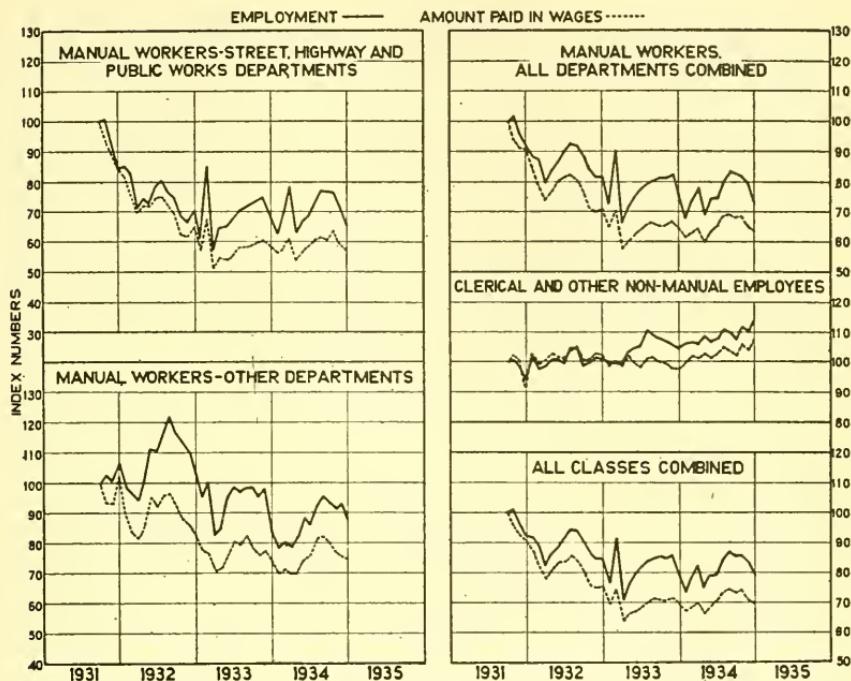
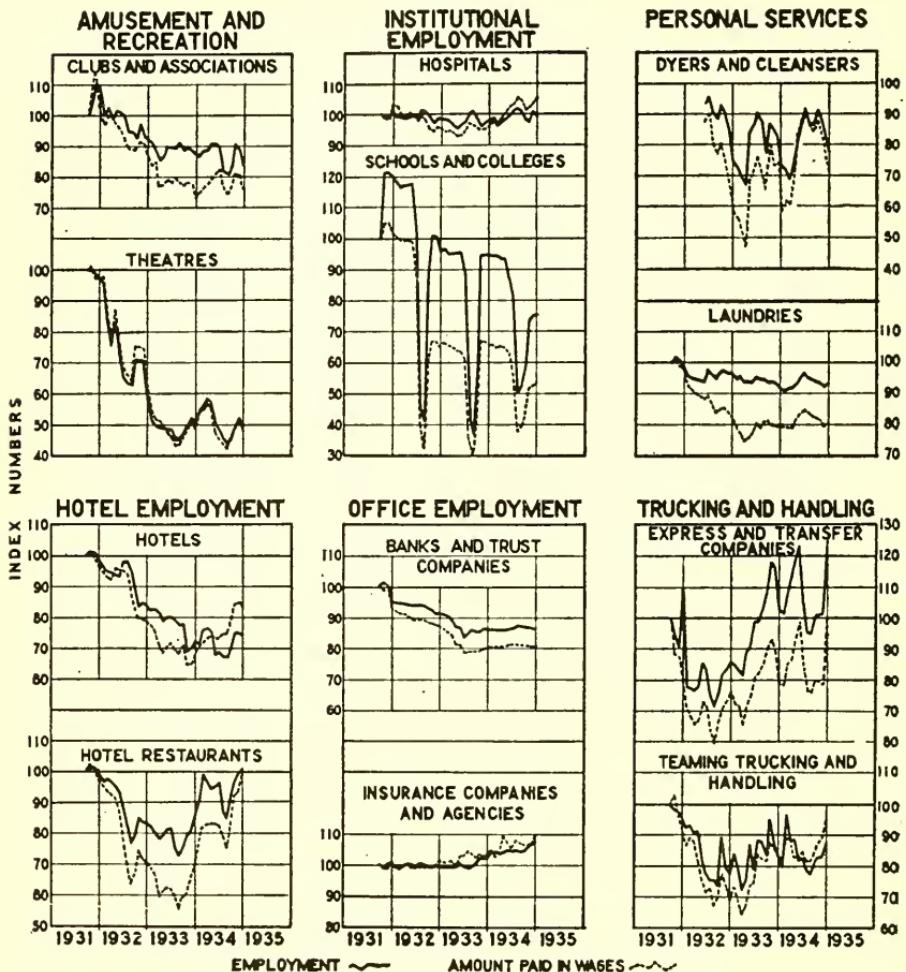


Plate 16

TREND OF EMPLOYMENT AND OF AMOUNT PAID IN WAGES IN
12 MISCELLANEOUS CLASSES OF EMPLOYMENT IN MASSA-
CHUSETTS, SEPTEMBER, 1931-DECEMBER, 1934



REPORT OF THE DIVISION OF STANDARDS

JOHN P. McBRIDE, *Director of Standards*

During the year the division has performed its duties in much the same manner as in former years except that we have been able, by reason of the portable testing tank and heavy capacity testing truck, to give considerable assistance to sealers of weights and measures in tests where their equipment was insufficient. It is not the intention to perform the work for the sealers, although the heavy capacity testing truck will, in large measure, be required to serve along this line as the purchase of similar equipment by any city or town would be beyond expectations because of its cost. The use of this truck will be confined as closely as possible to the task of establishing master scales in the various cities and towns, which master scales can be used by the sealers for comparison. Testing tanks may be expected to be procured by the cities, at least, and some of the larger towns as the growing use of fuel and range oil for domestic heating purposes presents an everyday problem with which sealers should be in position to cope by means of proper testing apparatus. It may be said that this testing equipment has contributed materially to the improvement in heavy capacity scales and measuring devices employed for dispensing refined petroleum products.

The National Bureau of Standards has been operating its testing equipment, which consists of standard test weights to the value of 80,000 lbs., on railway and industrial track scales in this Commonwealth during the latter part of this year. This work, in conjunction with our heavy capacity test truck, gives a complete source of accurate information in relation to outdoor heavy capacity scales.

The matter of amending the specifications in relation to liquid measuring devices has been given considerable thought, and action was taken at the Sealers' Convention amending said specifications so as to insure the use of devices which will eliminate air and permit liquid only passing through the measuring chamber, and an additional specification was adopted in relation to vehicle tanks requiring automatic check valves, or other control, in compartment lines where discharge is effected through a manifold line, to prevent the diversion of measured liquid.

The revenue received from all sources shows a slight increase over the previous year, and this marks the first year since 1931 showing an upward trend in this phase of activity.

LEGISLATION ENACTED IN 1934

During the annual legislative session several amendments were made to statutes which this division and local sealers of weights and measures are required to enforce. Among these were chapter 77, providing for revocation of licenses granted to transient vendors; chapter 98, establishing fees for sealing oil and gasoline meters; chapter 109, further regulating the sale of cord wood and firewood and defining the term "kindling wood"; chapter 114, authorizing the sale of magazines and other periodicals by minors holding permits to sell newspapers; chapter 184, extending the penalty for selling or delivering coal which is short in weight or which contains an unreasonable amount of foreign substance so as to include attempts to sell or deliver such coal; and sections three and four, chapter 373, amending existing laws providing for the sealing of certain containers as measures for ice cream so as to include other frozen desserts and "ice cream mix."

LEGISLATION RECOMMENDED

1. *To Facilitate the Performance of Official Duties by the Director and Inspectors of Standards.*

Prior to the year 1907, the Treasurer of the Commonwealth was State Sealer of Weights and Measures, ex officio, such enforcement of weights and measures laws as was possible being accomplished through a single Deputy State Sealer.

At that time the statute provided a penalty of a fine of not more than \$300, or imprisonment for not more than two months, for whoever hindered, obstructed or in any way interfered with the deputy in the performance of his duty.

Through subsequent legislation, the duties of the Deputy State Sealer have been successively assumed by the Commissioner of Weights and Measures (1907), the

Commissioner of Standards (1918), and the Director of Standards (1919). During this time the penalty referred to has remained unchanged.

So many additional duties and responsibilities have been imposed by statutory enactment in the past twenty years that, at present, the enforcement of weights and measures laws is but one of many phases of the work of the Director and Inspectors of Standards and it appears desirable that sections 30 and 32, chapter 98, G.L., should be amended so as to make the penalty applicable to hindrance, obstruction or interference in the performance of any of their official duties, instead of being limited to those involved in the enforcement of weights and measures laws.

2. To Require that Meats and Poultry be Sold by Net Weight as Determined at Time of Sale.

Within the past few years there has been an increasing tendency on the part of certain markets to offer poultry and certain classes of meats for sale upon a "piece" basis, contrary to the long established custom of selling these commodities by weight.

This method of sale is very indefinite and might readily result in the perpetration of fraud. The average person cannot easily discern weight variations in chickens, ducks, geese, turkeys, etc., so that, under the "piece" system, the purchaser would have no definite assurance as to the quantity he should receive.

The same conditions apply to sales of hams, shoulders, corned beef and other kinds of meats. Some establishments have offered "combination" sales, specifying a "chicken," a "slice" of ham, a "piece" of corned beef, etc., in combination with certain vegetables, etc., without any declaration of the weight of any of these items. This method is not only undesirable from the standpoint of the consumer, but also from a competitive standpoint, as the "bargain" prices generally quoted in connection with these combination sales lead purchasers to the belief that they are receiving an extraordinary value for their money.

In order to eliminate this questionable practice, I would recommend the enactment of the accompanying bill requiring that meats and poultry be sold on the basis of net weight at time of sale.

NOTE: Drafts of bills covering the foregoing recommendations were seasonably filed with the Secretary of the Commonwealth as provided by section 33, chapter 30, G.L.

DIVISION PUBLICATIONS

The only publications issued by this division during the past year were the annual report of the Director of Standards for the year ending November 30, 1933, pamphlet copies of the hawker and pedler and transient vendor license laws, as amended, and Bulletin No. 29, containing amendments to statutes enforceable by weights and measures officials which have been enacted since the publication of our pamphlet compilation issued in 1930, opinions of the Attorney-General, etc.

CLINICAL THERMOMETERS

Authorized manufacturers are required to report to this office all sales and shipments of clinical thermometers upon which they have affixed a MASS SEAL mark. These reports show that during the past year sales and shipments of 195,119 such thermometers were made, of which number 99,245 were sold in Massachusetts and 99,874 in other states and the Dominion of Canada.

Six manufacturers, authorized to use seal marks upon certain of their products, submitted applications for the inclusion of several other types of clinical thermometers within their authority. After satisfactory inspection and tests these manufacturers were authorized to affix their MASS SEAL mark upon 15 new or improved types of thermometers.

One other manufacturer's application was rejected after inspection had shown his manufacturing methods and equipment to be unsatisfactory.

LABORATORY WORK

Calibration of Standards for Cities and Towns

ARTICLES	Tested	Adjusted	Sealed	Condemned
Avoirdupois weights	20	16	20	—
Liquid measures	1	—	1	—
Totals	21	16	21	—

Clinical Thermometers

DESCRIPTION	Tested	Passed	Rejected	Per Cent Passed
Massachusetts seal	562	516	46	91.81
Unsealed	1,201	1,141	60	95.00

The great majority of these unsealed thermometers were submitted by manufacturers in connection with applications for authority to affix a manufacturer's seal upon their products and were presumably carefully inspected and tested before submission so as to demonstrate their ability to achieve and maintain a high degree of precision.

Fees received for testing and certification of clinical thermometers to be offered for sale in this Commonwealth amounted to \$98.87.

Cans, Cartons, and Other Containers, Measures and Weighing and Measuring Devices Submitted in Connection with Manufacturers' Applications for Approval or for Authority to Affix the Manufacturers Seal Thereon.

ARTICLES	Tested	Accurate	Inaccurate
Cartons for use as measures in sale of ice cream, etc.	52	29	23
Computing scales	1	1	—
Computing scale charts	2	2	—
Counter and spring scales	16	8	8
Person-weighing scale	3	1	2
Wholesale milk cans	32	22	10
Milk jars (glass)	4	2	2
Milk jars (paper pulp)	15	10	5
Liquid measures	24	19	5
Oil measures	4	4	—
Coin-operated vending and amusement machines	8	6	2
Meter dial	1	—	1
Perfume meter	1	—	1
Totals	163	104	59

Miscellaneous Tests

	Tested	Accurate	Inaccurate
Automatic test-measures for gasoline pumps, etc.	2	2	—
Avoirdupois weights	81	81	—
Troy weights	54	54	—
Glass graduates	6	5	1
Ice cream cans	1	1	—
Incubator thermometers	5	5	—
Sour cream jars	6	—	6
Steel tapes	2	2	—
Totals	157	150	7

Other laboratory work included measurement of 72,499 yards of sewing thread; seven rolls of waxed paper; one coil of rope; four cans of lubricating oil; and contents of one bottle of imported liquor to settle dispute between importer and customs officials; weighing and measuring contents of 14 miscellaneous packages of food to assist packers in determining proper labelling of quantity of contents;

screening five samples of anthracite coal to determine size; preparing six samples anthracite coal for analysis to determine quality; weighing one lot of gold and one lot of silver in settlement of disputed weights; testing spring scale for U. S. Dept. of Agriculture and one postal scale for Bank Commissioner; and testing 22 linear measures, 22 lobster measures and 32 shellfish rings for the Division of Fisheries and Game.

FIELD WORK OF INSPECTORS

Large Capacity Scales

Testing of large-capacity commercial and industrial scales by means of the State test truck and standard weights aggregating 30,000 pounds was continued during the year when 89 cities and towns were visited and 182 scales tested. Upon first test, 77 of these scales were found accurate within permissible error and, upon re-test after repairs and adjustments were made, 41 of the others were found correct within similar limits. The Department of Public Works were advised as to the location of several of these scales in various sections of the State which are available for check-weighing heavy loads of road-building materials, etc. Several of the other scales tested were in such condition as to necessitate considerable repair work or replacement by new scales. Many of these were wagon scales, installed before the age of motor trucks, and their present condition was due to some extent to over-loading. Letters of appreciation for service rendered have been received from several coal dealers and manufacturing establishments whose scales when tested by our inspectors showed errors which could not be found by the local sealer with his limited amount of test-weights.

Gasoline and Oil Meters and Tank Trucks

As mentioned in my 1933 report, our equipment now includes a portable 100-gallon test tank, equipped with motor-driven pumping unit, meter and air-separator, mounted upon a trailer adapted to be attachable to any of the division automobiles so as to be readily transported to any section of the Commonwealth. With this equipment inspectors have, during the year, made 44 visits to various cities and towns and tested 170 bulk-station and tank-truck meters of which 16 were condemned by local sealers following these tests. The inspectors also calibrated 21 truck tank compartments and two testing tanks maintained by major oil companies. More than 87,000 gallons of oil were pumped in connection with these tests.

Some of the other activities of the inspectors are included in the following compilation:—

Number of Inspections:— Stores, 695; gasoline pumps, 142; pedlers, 1,055; transient vendors, 320; net weight markings, 366; coal weight certificates, 71; total 2,649.

Weighing and Measuring Devices. Sealed, 4,707; unsealed, 1,215; total inspected, 5,922. Accurate, 1,682; inaccurate, 126; total tested, 1,808.

Clinical Thermometers. Sealed, 100; unsealed, one; total inspected, 101.

Reweighings

COMMODITY	Number	Correct	Under	Over
Coal (loads)	117	50	29	38
Packages of food, etc.	4,149	2,082	712	1,355
Totals	4,266	2,132	741	1,393

State Institutions

ARTICLE	Tested	Adjusted	Sealed	Condemned
Scales	369	55	327	42
Weights	911	58	882	29
Oil pumps	1	—	1	—
Gasoline pumps	12	—	11	1
Liquid measures	3	—	3	—
Totals	1,296	113	1,224	72

Inspections and tests were made of 47 gasoline, fuel oil and grease measuring devices, installed under working conditions, which were submitted by manufacturers for approval of type under section 29, chapter 98, General Laws.

There were 26 applicants for certificates of fitness for appointment as measurers of leather. After examination, certificates were issued to 19 of these applicants, the others failing to qualify.

Complaints Investigated

There were 128 complaints investigated, several of which resulted in prosecutions, including two for the sale of coal containing an excessive amount of impurities, nine for insufficient weight of coal, one for giving insufficient measure of alcohol in cans purporting to contain one gallon, and two for attempting to give insufficient measure of firewood. One of the latter was committed to jail for nonpayment of the \$50 fine which was imposed by the court.

PROSECUTIONS

As shown by the following summary there were 54 prosecutions by the Director and inspectors during the year. Thirty-nine defendants were found guilty, three were discharged, four were dismissed without finding, and eight were permitted to plead *nolo*. There were 19 cases filed wherein the defendants had made restitution or obtained necessary license before trial.

Court Cases

NATURE OF OFFENCE	Number of complaints	Convicted		Discharged		Pleading nolo		Filed		Dismissed without finding		Fines imposed	Appealed
		Convicted	Dismissed	Discharged	Pleading nolo	Filed	Dismissed without finding						
Giving insufficient weight of coal	6	3	—	—	1	4	2	—	—	—	—	\$20	—
Giving insufficient weight of coke	1	—	1	—	—	—	—	—	—	—	—	—	—
Giving insufficient weight of fish	2	1	—	—	—	—	—	—	—	—	—	25	—
Giving insufficient weight of meat	2	1	—	—	—	—	—	—	—	—	—	50	—
Giving insufficient measure of alcohol	1	1	—	—	—	—	—	—	—	—	—	20	—
Giving insufficient measure of wine	1	1	—	—	—	—	—	1	—	—	—	—	—
Attempt to give insufficient measure of firewood	2	2	—	—	—	—	—	—	—	—	—	75	—
Sale of coal containing excessive foreign substance	2	2	—	—	—	—	—	—	—	—	—	50	—
Interfering with inspector	1	1	—	—	—	—	—	—	—	—	—	50	1
Possession of unsealed scale	3	2	—	—	—	1	2	—	—	—	—	10	—
Possession of false scale	2	1	—	—	—	1	—	—	—	—	—	20	—
Neglect to issue coal weight certificate	2	1	—	—	—	—	1	—	1	—	—	5	—
Neglect to issue certificate of measure of firewood	1	1	—	—	—	—	—	—	—	—	—	—	—
Not displaying license plates on vehicle	1	—	—	—	1	—	—	—	—	—	—	—	—
Conducting transient business without license	10	8	1	—	—	1	1	1	1	22	—	—	—
Peddling without license:—													
Bakery products	1	1	—	—	—	—	—	—	—	20	—	1	—
Fruits and vegetables	1	1	—	—	—	—	1	—	—	—	—	—	—
Fuel oil	5	3	1	—	—	1	—	—	—	15	—	—	—
Coal	4	3	—	—	—	1	—	3	—	—	5	—	—
Ice cream	2	2	—	—	—	—	1	—	—	20	—	1	—
Feathers and pennants	2	2	—	—	—	—	2	—	—	—	—	—	—
Peanuts	1	1	—	—	—	—	—	1	—	25	—	1	—
Razor blades	1	1	—	—	—	—	1	—	—	—	—	—	—
Totals	54	39	3	8	19	4	4	4	4	\$432	—	4	—

OFFICE WORK

Weighing and measuring devices approved as to design and construction under section 29, chapter 98, General Laws, included six bench scales, six portable platform scales, one computing scale, one portable gasoline pump, 20 gasoline meter systems, 11 computing gasoline meter systems, nine tank-truck meter systems, two bulk-station meter systems, and two liquid measures.

Coin-operated devices approved under section 283, chapter 94, included one candy-bar vending machine, one cigarette vending machine, and four devices approved for amusement only.

Under section 13, chapter 98, five manufacturers were authorized to affix the manufacturers' seal-mark upon 21 additional types of clinical thermometers.

Under section 15, chapter 98, one manufacturer of glass milk jars was authorized to seal certain of his products.

Under section 16, chapter 98, the manufacturer of a new type of paper-pulp milk jar was authorized to seal the same.

Under section 18, chapter 98, two manufacturers of wholesale milk cans were authorized to affix the manufacturers' seal upon 13 sizes and types of these measures.

Under section 22, chapter 98, there were 13 sizes and types of paper or fibre cartons approved for use as measures in the sale of ice cream and certain other specified commodities.

Under section 3, chapter 101, General Laws, \$1,000 in cash was deposited and surety bonds aggregating \$151,500 filed with the director by applicants for transient vendors' licenses, to be subject to legal claims incurred in connection with the business conducted under such licenses.

As shown by the detailed financial statement included elsewhere in this report a total of \$111,117.97 was received from all sources, including fees for hawkers' and pedlers' and transient vendors' licenses, transfer fees and fees for testing clinical thermometers.

Hearings were given to 56 firms and individuals, several upon complaints of violation of the statutes governing the labelling of bread and other foods in package form and others who were licensed pedlers charged with violating the conditions of their licenses.

LICENSES

Transient Vendors

There were 305 transient vendors' licenses issued and the fees received therefor amounted to \$7,625. Ten persons were prosecuted for conducting a transient business without license.

Hawkers and Pedlers

There were 4,426 hawkers' and pedlers' licenses and 794 transfers of licenses for which fees were received, comparable with 4,330 issued and 976 transferred in the preceding year. Special licenses were issued without fee to 479 disabled veterans of the World War, 150 less than were issued in 1933.

EDUCATIONAL AND CO-OPERATIVE ACTIVITIES

In addition to Bulletin No. 29 and other printed information disseminated throughout the year, co-operation with officials of other states and with various business organizations was carried on through exchange of communications and by personal contacts.

The Director addressed the annual convention of the Massachusetts Petroleum Dealers' Association at the Hotel Statler and also a meeting of East Boston oil dealers and explained the application of the hawkers' and pedlers' license in the selling of fuel oils, and Inspector James J. Dawson addressed similar gatherings at Lowell and Lawrence upon the same subject.

With all inspectors, the Director attended the annual convention of the Massachusetts Association of Sealers of Weights and Measures at Framingham, October 18 and 19, which offered opportunity for consultation with local sealers as to their individual problems.

In co-operation with the First Corps Area Quartermaster's Department, tests were made to determine the accuracy of gasoline metering systems at the Army Reservation of the East Boston Airport.

Inspectors William Bradley and William C. Hughes were assigned at various times to assist officers of the Boston Police Department and of the District Attorney's office of Middlesex County in the prosecution of operators of coin-operated gambling devices.

Following the testing and standardizing of their avoirdupois weights in the laboratory of this division a letter of appreciation was received from the sales manager of a nationally known tea company stating that the corrections made in these weights were equivalent to 21,000 pounds of tea in their annual business.

Instances of co-operation with other state departments will be found under the heading "Laboratory Work."

LOCAL SEALERS OF WEIGHTS AND MEASURES

The following summary of work performed by local sealers of weights and measures is compiled from the annual reports which they are required by section 37, chapter 98, General Laws, to file with the director between the first and tenth of December in each year. The Sealers in the city of Newburyport and the towns of Barnstable, Egremont, Freetown, Hancock, Huntington, Oakham, Sherborn, Tolland and West Stockbridge failed to perform this statutory duty and therefore the work, if any, performed by them cannot be included in this summary.

SUMMARY OF LOCAL SEALERS' WORK

ARTICLE	Adjusted	Sealed	Non-sealed	Condemned
<i>Scales</i>				
Platform (over 5,000 lbs.)	376	2,406	61	126
Platform (100 to 5,000 lbs.)	4,268	19,993	907	758
Counter (100 lbs. or over)	156	1,537	58	59
Counter (under 100 lbs.)	1,649	13,718	322	351
Beam (100 lbs. or over)	157	1,661	40	59
Beam (under 100 lbs.)	42	649	7	2
Spring (100 lbs. or over)	251	4,985	32	360
Spring (under 100 lbs.)	3,513	26,041	193	1,210
Computing (100 lbs. or over)	74	510	7	16
Computing (under 100 lbs.)	4,259	21,429	203	1,065
Person weigher (slot)	125	4,587	15	267
Prescription	188	1,790	31	78
Jewellers'	68	703	16	108
Totals	15,126	100,009	1,892	4,459
<i>Weights</i>				
Avoirdupois	4,517	118,953	1,140	406
Apothecary	290	21,877	48	452
Metric	103	8,326	424	100
Troy	951	9,672	57	202
Totals	5,861	158,828	1,669	1,160
<i>Capacity Measures</i>				
Vehicle tanks (Compartments)	—	2,943	—	85
Liquid measures	279	34,252	413	582
Ice cream cans	—	10,229	105	97
Glass graduates	—	220	—	36
Oil bottles	—	11,628	—	72
Milk jars	—	2,043	—	—
Dry measures	—	1,091	—	25
Fuel baskets	—	676	—	21
Totals	279	63,082	518	918
<i>Automatic Measuring Devices</i>				
Gasoline pumps	1,695	11,923	2,212	701
Gasoline and oil meter system	3,164	15,558	—	1,140
Kerosene pumps	173	2,914	341	113
Lubricating-oil pumps	2,180	10,181	6,336	145
Grease-measuring device	411	1,181	20	49
Molasses pumps	5	269	24	8
Quantity stops (on measuring pumps)	4,474	66,752	—	—
Leather measuring machines	—	277	—	25
Totals	12,102	109,055	8,933	2,181

ARTICLE

Linear Measures	Adjusted	Sealed	Non-sealed	Condemned
Yard sticks	—	193	—	—
Tapes	—	120	—	4
Taximeters	6	1,714	—	18
Cloth-measuring devices	—	739	—	34
Totals	6	2,766	—	56
Grand Totals	33,374	433,750	13,012	8,774
Sealing fees collected	\$56,026.41			
Adjusting charges	5,420.44			
Total collected	\$61,446.85			

Reweighings and Remeasurements

COMMODITY	Number of Reweighings, etc.	Correct	Under	Over
Beans	4,885	3,610	719	556
Bread	36,220	23,807	2,895	9,518
Butter	19,485	16,713	1,410	1,362
Charcoal (in paper bags)	683	628	4	51
Coal (in paper bags)	9,153	5,938	1,119	2,096
Coal (in transit)	2,089	412	275	1,402
Coke (in paper bags)	724	595	3	126
Confectionery	5,686	4,836	291	559
Dry commodities	24,029	21,222	964	1,843
Dry goods	72	62	2	8
Flour	6,530	4,699	778	1,053
Fruits and vegetables	9,614	6,864	1,304	1,446
Grain and feed	703	565	75	63
Hay	66	38	14	14
Ice	795	393	50	352
Kindling wood (in paper bags)	2,048	1,987	26	35
Lard	2,439	2,253	42	144
Liquid commodities	3,860	3,354	259	247
Meats and provisions	11,405	9,739	743	923
Potatoes	6,568	3,799	1,087	1,682
Cord wood	171	124	28	19
Firewood	35	6	27	2
Kindling wood	225	217	1	7
Miscellaneous	1,861	1,647	103	111
Totals	149,346	113,508	12,219	23,619

The annual reports also show the following reweighings and remeasurements of various commodities made by local sealers for various municipal departments:—2,731 loads and 104 bags (100 lbs.) of coal, 768 cords of wood, 72 bushels of kindling wood, 41 tank-loads of fuel oil, one tank-load of gasoline, one can of kerosene, 59 loads and 99 bales of hay, four loads and 8 bags of oats, 22 bags of bran, 31 bales of straw, 55 loads of hay and grain, 48 loads of lumber, 2,537 tons crushed stone, 390 loads of gravel, 25 loads of sand, one load of cinders, two loads of steel, 150 bags of cement, one lot of sole leather, 61 bags of beans, 375 bags of flour, 1,065 bags of potatoes and one garbage wagon.

Local sealers inspected 7,392 clinical thermometers, 2,446 coal weight certificates, 1,831 ice scales, 395 junk scales, 2,638 pedlers' scales, 307 transient vendors, 5,628 pedlers' licenses, 35,030 markings of food packages, 18,135 weight statements on bread loaves, 9,459 ice cream cans, 3,558 wholesale milk cans, 10,272 milk jars, 15,429 lubricating-oil bottles, and 13,247 other miscellaneous items; and tested 2,628 berry baskets, 3,349 paper or fibre cartons, 167 climax baskets, 5,983 milk

jars, 1,514 lubricating-oil bottles, 877 standard farm-produce boxes, 31 United States standard barrels, 3,577 retests of gasoline measuring devices after sealing, 23 beer barrels, and made 2,066 other miscellaneous tests.

PROSECUTIONS BY LOCAL SEALERS

NATURE OF OFFENCE	Number of complaints ^a	Convicted	Discharged	Pledged nolo	Filed	Defaulted	Fines imposed	Appealed
Giving insufficient weight of:—								
Apples	1	1	—	—	—	—	\$5	—
Bread	2	2	—	—	—	—	40	—
Ice	1	1	—	—	—	—	20	—
Meat	4	4	—	—	—	—	125	1 ¹
Peanut butter	1	1	—	—	—	—	—	—
Sugar	1	1	—	—	—	—	25	—
Crushed stone	1	1	—	—	—	—	50	—
Cherries	1	1	—	—	—	—	5	—
Miscellaneous	1	—	1	—	—	—	—	—
Giving insufficient measure of:—								
Blueberries	1	1	—	—	—	—	25	1
Strawberries	1	1	—	—	—	—	5	—
Oysters	1	1	—	—	—	—	5	—
Oil	2	2	—	—	—	1	10	—
Wood	9	9	—	—	—	5 ²	85	—
Attempt to give insufficient weight of:—								
Onions	1	1	—	—	—	—	10	—
Tomatoes	6	6	—	—	—	—	70	—
Possession of false scale	10	9	—	—	—	3	1 ¹	75
Possession of false measure	1	—	1	—	—	—	—	—
Using unsealed scale	2	2	—	—	—	—	30	1
Using unsealed measure	2	1	—	—	1	1	25	—
Using unsealed oil meter	1	1	—	—	—	—	20	—
Fraud and deceit in sale of coal	1	1	—	—	—	—	20	—
Attempted fraud in delivery of coal	1	1	—	—	—	—	25	—
Sale of coal with excessive foreign matter	1	1	—	—	—	—	25	—
Failure to issue weight certificate in sale of coal	2	1	1	—	—	1	—	—
Failure to issue certificate in sale of cord wood	2	2	—	—	—	1	—	10
Failure to provide scale on ice wagon	1	1	—	—	—	1	—	—
Failure to display price list on ice wagon	2	2	—	—	—	1	—	10
Interfering with sealer	1	—	1	—	—	—	—	—
Interfering with deputy sealer	1	1	—	—	—	—	50	1
Assault and battery on deputy sealer	1	1	—	—	—	—	25	1
Conducting transient business without license	8	6	1	—	3	—	14	—
Peddling without license:—								
Coal	3	3	—	—	2	—	50	—
Fuel oil	12	9	—	1	6	—	85	1 ³
Dry goods	3	3	—	—	1	—	20	—
Fruit and vegetables	4	4	—	—	—	—	55	1
Bakery products	5	4	—	—	—	—	55	—
Ice cream	8	8	—	—	6	—	43	—
Peanuts	1	1	—	—	—	—	25	1 ³
Meats	2	2	—	—	—	—	15	—
Statuary	2	2	—	—	1	—	5	—
Playing cards	2	2	—	—	—	—	40	2 ³
Miscellaneous	14	12	—	1	5	—	120	—
Supplying ice cream for unlicensed minors to peddle	2	2	—	—	—	—	10	—
Peddling under another's license	1	1	—	—	—	—	10	—
Totals	130	116	5	4	41	1	\$1,342	10

¹ Discharged in Superior Court.

² Restitution made and costs of court paid.

³ Not prosessed in Superior Court.

FINANCIAL STATEMENT OF THE DIVISION OF STANDARDS

Receipts

1,076 State (hawkers' and pedlers') license fees	•	•	•	•	•	\$53,800.00
1,906 County (hawkers' and pedlers') license fees	•	•	•	•	•	16,974.00
637 City (hawkers' and pedlers') license fees	•	•	•	•	•	16,546.00
807 Town (hawkers' and pedlers') license fees	•	•	•	•	•	9,586.00
305 Transient vendors' license fees	•	•	•	•	•	7,625.00
794 Transfer fees	•	•	•	•	•	794.00
Total receipts from license fees	•	•	•	•	•	\$105,325.00

Fees received for licenses not issued	\$293.00
Fees received for testing clinical thermometers	98.87
Received for pedlers' plates and badges	4,996.25

Total receipts	\$110,713.12
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Court fines for violations of hawkers' and pedlers' laws	404.25
Accumulated deposits covering uncashed checks60

Total	\$111,117.97
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Payments

To State Treasurer:	
1,076 State license fees	\$53,800.00
1,906 County license fees	1,906.00
637 City license fees	637.00
807 Town license fees	807.00
305 Transient vendors' license fees	7,625.00
794 Transfer fees	794.00
Fees received for licenses not issued	293.00
Fees received for testing clinical thermometers	98.87
Pedlers' plate and badge money	4,996.25
Accumulated deposits covering uncashed checks60

Total payments to State Treasurer	\$70,957.72
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To county treasurer	\$15,068.00
To city treasurers	15,909.00
To town treasurers	8,779.00

Total paid to county, city and town treasurers	39,756.00
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Total payments	\$110,713.72
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Total paid direct to state treasurer for court fines	404.25
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\$111,117.97

Summary

Appropriation, personal services	\$29,344.00
Expended	29,343.30

Unexpended balance	\$0.70
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Appropriation, general expenses	\$13,986.26
Expended	9,938.94

4,047.32

Unexpended balance	\$4,048.02
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Total income to the Commonwealth from licenses, etc.	\$70,957.12
Total expenditures	39,282.24

Excess of income over expenditures	\$31,674.88
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REPORT OF THE DIVISION ON THE NECESSARIES OF LIFE

RALPH W. ROBART, *Director*

AUTHORIZATION

The year 1934 represents the first full year of the New Deal; therefore this report will dwell to a great extent on the various federal agencies whose activities have caused direct added costs to the Massachusetts consumer budget.

During periods of rising commodity prices, there is a tendency to misunderstand the powers and duties of the division and to place the responsibility for increased prices upon state government. This division is distinctly a fact-finding agency whose power is reflected in public reaction and compliance to boycott suggestion when publication of facts indicate that exploitation or profiteering exist in the merchandising of certain commodities.

To prevent any delusion regarding the extent of the division's authority, sections of Chapter 410 of the Acts of 1930, as amended by Chapter 362 of the Acts of 1933, are published herewith:

SECTION 9E.—The division shall study and investigate the circumstances affecting the prices of fuel, gasoline and refined petroleum products and other commodities which are necessities of life. It may inquire into all matters relating to the production, transportation, distribution and sale of the said commodities, and into all facts and circumstances relating to the cost of production, wholesale and retail prices and the method pursued in the conduct of the business of any persons, firms or corporations engaged in the production, transportation, or sale of the said commodities, or of any business which relates to or affects the same. It shall also study and investigate the circumstances affecting the charges for rent of property used for living quarters, and in such investigation may inquire into all matters relating to charges for rent.

SECTION 9F.—The division shall have authority to give hearings, to administer oaths, to require the attendance and testimony of witnesses and the production of books and documents and other papers, and to employ counsel. Witness summonses may be issued by the director or by any assistant by him designated and shall be served in the same manner as summonses for witnesses in criminal cases issued on behalf of the commonwealth, and all provisions of law relative to summonses issued in such cases shall apply to summonses issued hereunder, so far as they are applicable. Any justice of the supreme judicial court or of the superior court may, upon application of the director, compel the attendance of witnesses and the giving of testimony before the division in the same manner and to the same extent as before said courts.

SECTION 9G.—The division shall investigate all complaints made to it, and may publish its findings. It shall keep in touch with the work of federal and municipal and other agencies dealing with the necessities of life, and give them such assistance as it deems advisable; and may invoke the aid of said agencies and of civic and other organizations.

CHAPTER 362. — AN ACT RELATIVE TO THE PROTECTION OF THE PUBLIC IN THE EVENT OF A FOOD OR FUEL EMERGENCY.

Whereas, The deferred operation of this act would defeat its purpose, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public health, safety and convenience.

Chapter twenty-three of the General Laws is hereby amended by striking out section nine H, as appearing in the Tercentenary Edition thereof, and inserting in place thereof the following:—

SECTION 9H.—Whenever the governor shall determine that emergency exists in respect to food or fuel, or both, he may, with the approval of the council, by a writing signed by him, designate the director of the division on the necessities of life to act as an emergency food or fuel administrator, or

both, and thereupon the director shall have, with respect to food or fuel, or both, as the case may be, all the powers and authority granted by the Commonwealth Defense Act of nineteen hundred and seventeen, being chapter three hundred and forty-two of the General Acts of nineteen hundred and seventeen, to persons designated or appointed by the governor under section twelve or said chapter three hundred and forty-two; and the governor may revoke such written authority at any time. During such an emergency, the governor, with the approval of the council, may make and promulgate rules and regulations, effective forthwith, for the carrying out of the purposes of this section and for the performance by the commonwealth and the cities and towns thereof of any function affecting food or fuel authorized under Article XLVII of the amendments to the constitution. Violation of any such rule or regulation shall be punished by a fine of not more than five hundred dollars or by imprisonment for not more than six months, or by both. The provisions of said chapter three hundred and forty-two are hereby made operative to such extent as the provisions of this section may from time to time require.

SUMMARY OF ACTIVITIES

Introduction

Massachusetts was one of the last states to feel the pangs of depression. This is attributable to many reasons but primarily to the liberality of our laws which provide minimum wage; maximum hours of labor for women; old age assistance; welfare relief; soldiers' aid and relief; and many other measures tending toward the protection of our own citizens.

When a program of national recovery is fostered by our federal government we, of course, realize that we are part of a great nation of forty-eight states and must patriotically submit to temporary laws passed for the purpose of healing sores in our economic structure. We must not lose sight of the fact that a curb is necessary to prevent the sores from being transferred from one part of the economic body to the other. Little benefit will result if the people of Iowa or Wisconsin are restored to prosperity if, by so doing, the people of Massachusetts or Maine are deprived of the wherewithal to continue a normal existence. It has been and is the duty of this division to observe the transition and to protest to the proper authorities in Washington when it appears that Massachusetts citizens through the process of economic reorganization are being compelled to pay too heavily for the relief of citizens of other states.

The term "New Deal" implies the shuffling and redistribution of cards. Each state is representative of a card. The intent apparently is to give each card or state a value based on normal producing, earning and purchasing power, and to restore equality through the medium of administrative function, authority for which has been voted by Congress which has passed temporary laws giving the President of the United States extraordinary power to set up agencies for restoration.

Still adhering to the card theory, we recognize that the best possible hands can be misplayed; therefore a "New Deal" serves no purpose unless the players, as represented by administrative authorities designated by the President, serve with knowledge not only of the laws they are to administrate but of the people whom they hope to assist or relieve.

The above interpretation is cited because this division has reason to believe that the hands have been poorly played in many instances, not always with malicious intent, but because the players, all of whom could recite the law backwards, were lacking the ability to measure human tendencies. The elements of greed are always prevalent, pawing at the latchstrings of special benefit. Your director has made several trips to Washington during the past year for the purpose of protesting certain phases of the N.R.A. and A.A.A. programs, the operation of which were exacting too great an economic penalty from the people of Massachusetts. The cabinet officers charged with the supervision of remedial procedure were always receptive and tolerant, but the understrappers, in most instances, were so imbued with their own importance that they had little time for the problems of the people of a single state. They were dealing with big shots who had

programs to put over for the ice trust, milk trust, or innumerable monopolies camping in Washington; therefore statistical data presented by an unbiased state could be of no assistance or value.

In the drafting of specific codes and marketing agreements, too much power is in the hands of irresponsible subordinates. The cart seems to be before the horse. These codes and marketing agreements actually become contracts between the government and the people. The public hearings are held in compliance with law and are perfunctory. Petitions are presented in a cynical manner which gives every evidence to the observer that they have been read before by the subordinate assigned to hear them. These petitions pass on through the various divisions to the head of the department, who becomes the signer for the government. When a marketing agreement reaches the Secretary of Agriculture's desk, he is powerless to amend it, as the law provides that amendments shall be assented to by both parties. It stands to reason that the party of the second part would not assent to an amendment, as all special benefits desired are incorporated in the petition then on the Secretary's desk.

The word "lobbying" is well known to American government. Under the present set-up special interest groups have a comparatively easy time putting over their pet projects, owing to the flexibility of temporary laws and the broad authority that has been designated by Congress and passed on down through the various governmental officers. The lobbying is now done in the Agricultural Building corridors where it is not at all uncommon to observe whispered conversations going on between representatives of special interest groups and the economist of one of the subordinate divisions. To accomplish this special privilege under the old set-up, the lobbyist had to convince the majority of Congress as to its necessity and benefit. Each Congressman, regardless of such pressure, was usually guided by the sentiment of his constituency and voted for or against measures based on the protection it afforded them or the benefits that accrued.

Each marketing agreement or license is delegated to an economist to study and redraft and, unless methods have been changed very recently, the redrafting consists of supplementing clear and protective language that was not originally presented at the public hearing. While it would be impossible for the Secretary to sit in judgment at all public hearings in view of the fact that he is the eventual signer for the government, it would seem that some other method should be adopted to protect the general public and prevent the broad powers that are now delegated to persons unfamiliar with the intrigue of lobbyists seeking special privilege to the detriment of consumer rights.

I would not have it appear that the national administration condones this procedure; in fact I have every reason to believe that many discharges have taken place when such conditions have been brought to the attention of authorities. However, I do cite this to make comparison between the old method of fixed authority by law and designated authority for the purpose of recovery.

THE NATIONAL RECOVERY ADMINISTRATION

This is a temporary law passed by Congress and signed by the President on June 16, 1933, to extend for two years. The broad purposes of the act were to increase employment and to raise wages, thereby increasing national purchasing power with a view to stimulating and hastening business recovery. The act also seeks the elimination of unfair competition by placing all members of an industry on an equal basis, especially in so far as basic hours and wages of labor are concerned. At the outset this would indicate that Massachusetts industries and the people working in these industries would be benefited, or at least protected by this act, as it would bring into line competing industries of other states which heretofore were not subject to minimum wages or maximum hours of employment. In this respect the people of Massachusetts were benefited but, in carrying out the general provisions of NRA in so far as it applies to codes for specific industries, the element of greed is the predominant factor. This division contends that legislation and administration will never change human nature. Individuals or organizations imbued with the spirit of greed utilize every available means to accomplish their end, regardless of whether it reacts to the detriment of citizens who believe in subscribing to patriotic attempts to bring about recovery.

Recently, the National Industrial Recovery Board was engaged in public hearings held for the purpose of determining the phases of NRA that were universally beneficial and the elimination of those phases that were impractical and punitive. The information obtained at these hearings was presumably to be utilized to determine a policy to be followed in drafting legislation for the continuance of NRA or its equivalent upon termination of the present act in June, 1935.

The director of the division attended these hearings for the purpose of condemning price-fixing provisions of NRA; recommending a policy that might be followed to eliminate the chiseller with adherence to the policy of doing business at a profit; and requesting the elimination of price-fixing provisions in specific codes, it having been determined by experience that such a policy had eliminated the consumer's right to shop around and tended toward stifling competition. With the exception of state and city purchasing agents, most persons filing briefs or speaking at the hearings represented private industry. The presentation of information and facts by one without any personal axe to grind seemed to be somewhat unusual, and board members asked many irrelevant questions which led one to believe my presence was unwelcome.

However, attention was called to the fact that the President of the United States had already recognized the fallacy of general price-fixing and, regardless of their recommendation to him, there was assurance it would be eliminated in recommendations for future legislation. The director contended at this hearing that each code required costly administration and was more difficult to enforce than prohibition. The code of fair play, as exemplified by the activities of this division, has brought about more mutual understanding than any price-fixing or any law.

It was further recommended that in lieu of a multiplicity of codes that NRA be reduced to a general regulation with penalties for its violation so severe that it would defeat the tendency to evade it. For example: a uniform cost accounting system shows all costs from producer to consumer. Instead of federal agents endeavoring to determine whether commodities were being sold below cost to the detriment of stabilization and recovery, every business man in the country would become an enforcement agent for the protection of his own business. If in the case of bidding on government or private contracts it could be shown that the low bidder had presented a price or prices that did not carry all costs, the second bidder would so report to the government and the low bidder, in addition to losing the contract, would be cited for violation. It is represented that this method would eliminate chiselling quicker than anything else. In the meantime the spirit of the American consumer would not be broken and his right to shop around for bargains would be cherished.

Under a specific code make-up, and it is recognized that no code is adopted without public hearing or advice of the Consumers' Advisory Board of NRA, it is natural to assume that the only participants in these hearings are those organizations financially equipped to pay for representation in Washington for lengthy periods. It is also natural to assume that these representatives will sponsor specific codes beneficial to the particular interests which they represent.

The word monopoly has crept into many denunciations of NRA. It could not help but creep in under the circumstances because human nature is the predominant element. As long as there are hearings and specific codes, those equipped to attend hearings and draft specific codes will foster and protect their own industry. It is apparent that the President of the United States does not intend to condone such a set-up. It is contrary to the spirit and intention of NRA. The experiment was necessary. It has shown up the fallacies. Future legislation will no doubt eliminate these fallacies and go far toward eliminating the chiseller by restoring business opportunities to all those intelligent and conscientious enough to carry them on efficiently and fairly.

AGRICULTURAL ADJUSTMENT ADMINISTRATION

In May, 1933, the Agricultural Adjustment Act was established by law and was made part of the Department of Agriculture. It was divided into many divisions for the purpose of so controlling crop production as to provide only sufficient crops for domestic consumption which, by so doing, would command

higher prices, thereby restoring farm income and purchasing power comparable with that of city workers.

Less than 4% of our Massachusetts citizens are engaged in agriculture, therefore it is somewhat difficult to realize the farmer's plight prior to the inauguration of agricultural administration. Many farms were abandoned. Many farmers were ready to lay down their plows for, after months of laborious work providing commodities upon which we are dependent for our existence, they did not receive sufficient returns to buy city produce. In fact their returns were so small that they could not pay their financial obligations at the farm.

We of an industrial state recognize that the wheels of industry cannot turn indefinitely unless people in other states buy manufactured goods produced by our industries. The general theory of agricultural relief was contemplated as an endeavor to complete the economic cycle by which increased farm income would be utilized to purchase manufactured goods, thereby pepping up industry, increasing employment, and providing higher wages for city workers to meet increased prices of farm products. We of Massachusetts are dependent upon out-of-state farmers for over 90% of our food supply. It is therefore necessary to complete the economic cycle of increased employment and higher wages to offset increased farm prices, or farm relief becomes a direct out-of-pocket expense to the Massachusetts consumer.

The first full year of AAA has demonstrated the futility of trying to regulate human nature. The cycle has not been completed. Food prices have increased 36%. The agricultural administration pays the farmer on a land lease basis for reducing his wheat acreage. A processing tax amounting to 30c a bushel for wheat or \$1.38 a barrel for flour has been put on, in addition to controlled production. Consumers of non-producing states pay for this control.

Hog raisers were paid \$5 per hog for cutting production 25%, and in 1935 will be paid \$15 per hog for a 10% decrease. Massachusetts hog raisers were paid \$600,000 in two years under this program. It matters little whether the hog was garbage-fed, as is mostly the case in Massachusetts, grain-fed, as in the mid-west, or whether the hog would eventually have been 100 lbs. or 400 lbs., the payments are the same. A few of our Massachusetts hog raisers were well compensated by this procedure. What could be more ridiculous than purchasing hogs across the water while paying Massachusetts hog raisers a bonus for not raising hogs! We not only have facilities for raising hogs but also for processing them right here in our own state, yet the prices we pay are based on a national commodity exchange set-up with transportation rates from the mid-west included. We should enjoy the same privileges on pork produce prices as we enjoy on prices of fresh vegetables grown in Massachusetts. It is high time Massachusetts consumers protected themselves by demanding that the AAA restore production to its normal capacity at once.

We used to think of foreign trade in terms of foreign countries providing goods which we did not produce in sufficient volume to supply our needs, and we in turn provided them with goods they were unable to produce in sufficient volume for their domestic needs. The agricultural program seems to have been responsible for the slogan: "Make the world safe for foreign trade at the expense of America." Over 3,000,000 bushels of corn were imported in March as against 16,000 bushels a year ago. Corn coming in here sealed the 25c tariff wall, while our own corn-fields were plowed under.

Approximately 5,000,000 pounds of butter were imported as against 29,000 pounds a year ago, due to a cattle-control program which was further reduced by the drought and inability to produce grains to feed the cows. Butter had to scale a 14c per pound tariff. Two million six hundred thousand bushels of oats were imported in March of this year as compared with 153 bushels a year ago. One million pounds of fresh beef were imported in a month as against 2,800 pounds a year ago; 280,000 pounds of pork as against 26,000 pounds a year ago.

The most striking increase was the cottonseed cake and meal imports. Those concern a type of feedstuff for livestock. This year imports were 9,336,000 pounds in one month; the first quarter a year ago imports were 474,000 pounds. This year imports were 35,402,000 pounds. The cottonseed industry is one of the biggest industries of the South.

A few years ago we started to lose our industrial supremacy because of the failure of other states to adopt minimum wage laws, child labor laws, and maximum hours for women, thereby affording industrialists an opportunity to manufacture in southern states more reasonably. The resultant loss of employment through lost industries stagnated the purchasing power of all persons affected.

We now learn that the AAA is further penalizing the textile industry through the cotton control program and a processing tax of 4.2c to 10c a pound, in addition to which the government guarantees to purchase all undisposed of cotton at 12c a pound. This program affects Massachusetts and southern textile industries alike, and unless steps are immediately taken to protect these industries we will probably learn of their removal to foreign countries. We must not lose sight of the fact that much manufactured goods bearing the label of a foreign country is produced by aid of American capital. The industrialist is of the same human make-up as the employee. If the employee loses his employment, he endeavors to find employment somewhere else. If the industrialist because of one condition or another can no longer do business at a profit, it is natural to assume that he will remove his industry to a place where he can operate at a profit.

As outlined above the first move was from Massachusetts to southern states. Brazil has apparently taken advantage of the American cotton control program, and its production has increased about 70% in the last year. It can sell cotton to United States industry much cheaper than the 12c price guaranteed by our own AAA. If AAA had international control it is quite possible that a different picture might be presented, but unless something is done at once to relieve the situation, thousands more of our people will be thrown out of employment as a result of closing textile mills, which find it hard to sell goods made from high-priced cotton.

In addition to being one of our American-grown products, cotton was not only used to supply our domestic demand but was one of our principal exports. Foreign buyers are no longer interested in our product because of high prices. There is considerable agitation in Congress against the processing tax and it is hoped that through legislation, if necessary, this tax will be abandoned.

Processing taxes paid by the public in the first twenty-one months of farm benefit program exceed individual income taxes. Seven hundred ninety-two million dollars have been paid into the treasury during this period for processing taxes of farm commodities, as against \$760,000,000 on individual federal taxes on income. Most of the money derived from processing taxes came from the market basket of the housewife. About \$200,000,000 came from hogs that go into pork chops, hams and bacon. Just as much came from cotton that goes into clothes for the children, dresses for the women-folk, shirts and overalls for the men. Nearly as much came from wheat that goes into bread. Sugar, tobacco, corn, rice and peanuts contributed.

Where does this money go? From cities and towns back to the farm in the form of checks on the treasury. Farmers have been paid \$700,000,000 during this period. What for? In payment for their contract to produce less. But why produce less? To reduce the amount of farm production so that prices will be higher. Higher prices are sought by AAA to give farmers economic "parity" with city people. Parity means prices that return to the farm producer as much of the city consumer's dollar as he received back before the war. A balance is sought between city and farm, with prosperity the goal. During this period farm income has increased 90%, while city income has increased \$25 on every thousand. This division fails to see any economic justification for such a penalization of city-folk.

In the past few years there has been considerable discussion, both state and national, regarding the effect of the sales tax upon the family budget. No more drastic tax could have been put on the statute books than the processing tax, which has served as a direct attack on the poor man's diet and, regardless of income, has forced thousands of our citizens from meat to other substitutes.

It is interesting to note that national economists and statisticians base their per capita increase in the cost of living on the basis of those employed and incomes received from such employment. This division bases its cost of living index on actual prices charged for commodities, based on comparison of prices charged in

previous years. We do not intend to adopt any fantastical method that will attempt to explain how well off our people are through a method of complicated statistics. The sooner our national economists get down to a basis of collaboration on statistics and eliminate pretty figures that mean nothing to the average consumer, the better off we will be.

It was quite apparent by 1932, that the machinery of government was not equipped to relieve a complex situation by which people in certain sections of the country were starving to death while crops in other sections of the country were rotting in the ground. The old order of things had to be discarded and, in all fairness, the procedure of the inventor had to replace it. The inventor experiments until he has the efficient article; therefore, none of the observations made in this introduction are intended as a criticism of the national administration. To the contrary, there is every evidence that the inventor, so-called, is and has been experimenting in the hope of providing an equality or recovery for all.

This division does, however, criticize the method by which pressure groups can and do bear down on administration authorities appointed to work out and promulgate regulations, licenses, processing taxes or agreements, as the case may be.

An idea of the wide scope of authority that the Secretary of Agriculture has under the Agricultural Adjustment Act is contained in the following paragraphs:

- (a) Crop production control plans involving voluntary contracts between producers and the Secretary of Agriculture, providing for rental and benefit payments in return for individual adjustments in production.
- (b) Marketing agreements and licenses and other means designed to restore and maintain normal economic conditions in the marketing and financing of agricultural products, and to eliminate unfair practices and charges which have interfered with inter-state commerce in agricultural products.
- (c) Removal from ordinary trade channels of burdensome and price-depressing surpluses of agricultural products and expanding available markets for such commodities.
- (d) Through tax programs designated to restrict the volume of marketing of certain agricultural commodities.
- (e) Inclusion in codes of fair competition formulated under the National Industrial Recovery Act of provisions which tend to eliminate unfair and wasteful competitive practices among processors and distributors and enable them to operate more efficiently and pay better prices to producers.
- (f) Establishment of quotas on the quantity of an agricultural commodity which may be marketed or processed.

BASIS OF RENTAL AND BENEFIT PAYMENTS TO FARMERS.—Such payments are calculated upon the basis of average production in the past and do not depend upon current production. Hence the payments constitute a form of income insurance for farmers whose crops may be lost through natural causes.

PRODUCTION-CONTROL CONTRACTS.—It is the aim of the Agricultural Adjustment Administration to control production by means of contracts providing for rental and benefit payments to the producers of certain enumerated basic agricultural commodities who agree to limit their production. More than three million contracts of this type have been made.

BASIC AGRICULTURAL COMMODITIES.—Contracts providing for rental and benefit payments for reduction of production may be made with producers of any basic agricultural commodities, including wheat, rye, flax, barley, cotton, field corn, grain sorghums, hogs, cattle, rice, tobacco, peanuts, sugar beets and sugar-cane, and milk and its products. Production adjustment programs of this type thus far have been inaugurated with respect to cotton, wheat, hogs, field corn, sugar beets and sugar cane, tobacco and peanuts. As regards rice and milk, such control of production as has been put into effect has been accomplished indirectly by restrictions upon processors imposed through marketing agreements and licenses.

PAYMENTS ON CONTRACTS.—The farmer receives payments due him under crop controlled contract according to the terms of payment stated in the contract.

These differ among the contracts for different commodities. Usually, part of the payment is made immediately after the contract has been accepted by the Government, and the remainder is payable after the farmer has proved that he has fully complied with the terms of the contract.

PROCESSING AND OTHER TAXES.—The financing of a production controlled program is provided for by levying taxes upon this first domestic processing of the basic agricultural commodities upon which rental or benefit payments are made. Where the payment of processing taxes results in competitive advantages for competing commodities or commodities which are imported from abroad, over commodities paying the processing tax, compensating taxes may also be levied. Taxes also may be levied upon the floor and warehouse stocks of commodities upon which processing taxes have already been levied.

MARKETING AGREEMENTS AND BY WHOM MADE.—Marketing agreements may be entered into by the Secretary of Agriculture with producers, associations of producers, processors, and others engaged in handling agricultural commodities.

PURPOSE OF MARKETING AGREEMENTS.—The major purpose of a marketing agreement is to attain normal marketing conditions, so that the producer may receive parity prices for his product, without being prejudicial to the interest of the consumer.

MARKETING AGREEMENTS APPROVED BY MAJORITY OF INDUSTRY.—A marketing agreement is entered into only when a substantial majority of the industry sign it, since it is felt that a marketing agreement should not express the wishes of a minority.

PROCEDURE FOR ESTABLISHING MARKETING AGREEMENTS.—The procedure followed in the preparation and approval of marketing agreements is described in general regulations issued by the Secretary of Agriculture and approval by the President. A public hearing is provided for, with due notice to the parties concerned, at which any interested party has an opportunity to be heard.

APPLICABILITY OF A MARKETING AGREEMENT.—The territory covered by marketing agreements depends upon the type of industry. Thus far it has been found necessary to limit them in scope to definite marketing areas.

AGRICULTURAL ADJUSTMENT LICENSES.—A license may be issued by the Secretary of Agriculture, permitting processors, associations of producers, and others to engage in the handling of an agricultural product. The terms of the license are such as the Secretary considers necessary to carry out the policy of the Agricultural Adjustment Act, to eliminate unfair practices and restore normal conditions in connection with the marketing and financing of agricultural commodities.

LICENSES RESTRICTED TO DEFINITE MARKETING AREAS.—Because of diverse conditions affecting different marketing areas, licenses generally are restricted in scope. Frequently a license is issued for the same commodity and covering the same area as a marketing agreement. Licenses and marketing agreements may be issued separately. The Secretary has, with the approval of the President, issued general regulations covering the issuance and administration of licenses.

PENALTY FOR LICENSE VIOLATIONS.—Licenses may be suspended or revoked after due notice and opportunity for hearing. Anyone continuing to do business after his license has been suspended or revoked is subject to a fine of not more than \$1,000 for each day during which the violation continues.

REMOVAL OF SURPLUS FARM PRODUCTS.—Existing surpluses of agricultural commodities are removed from the market through the use of funds made available for that purpose. Where practicable, such surpluses are distributed to the needy unemployed by joint action of the Agricultural Adjustment Administration, the Federal Emergency Relief Administration, and the Federal Surplus Relief Corporation. Efforts also are made to discover and stimulate new or unused market channels for American agricultural goods.

BANKHEAD COTTON ACT.—Under this act, a national quota of cotton production is fixed, and allotments are made to the various states on the basis of their

past production equated to current demand. These allotments are then apportioned among the several counties and among individual producers of cotton, and a tax is levied upon all cotton ginned in excess of the apportionments. Producers are issued tax-exemption certificates for cotton up to the amount of his allotment.

KERR-SMITH TOBACCO ACT.—This act provides for the issuance of tax-payment warrants to each producer covering the quantity of tobacco which he is entitled to produce, and a tax must be paid on the sale of the remainder.

QUOTA SYSTEM OF SUGAR PRODUCTION.—In the case of sugar beets and sugar cane, the Jones-Costigan Sugar Act has put into operation a system of quotas on the amounts of sugar which may be imported from foreign countries, and on the amounts of domestically produced sugars which may be marketed and processed.

EFFECT OF SUGAR QUOTAS.—These have the effect of limiting the sugar put on the domestic market to that amount required to satisfy the domestic consumption requirements of continental United States, as determined by the Secretary of Agriculture. The quotas, assigned on a territorial basis, are allotted among individuals coming within such quotas.

In the first place, the Secretary of Agriculture is expected to be a superman under the authority granted him, for he is expected to anticipate demand of all commodities, regardless of the inability of persons to pay in sections of the country where little or no production takes place. It might be said that consumption over a period of years should serve as a barometer, but there again the Secretary of Agriculture or no human being has control over the weather. This was proven during the past year when the drought and sand storms eliminated and destroyed many crops, thereby upsetting any hope of completing the economic cycle.

The establishment of marketing agreements or contracts of any sort are dependent upon the integrity and reliance of the petitioners. We of Massachusetts had one glaring example of a marketing agreement which was promulgated for the purpose of stabilizing conditions in the New England Milk Shed, which provided milk for the Boston area. The petitioners complied with the regulations of the Agricultural Adjustment Administration, which provided that at least 70% of the producers and distributors should be in accord. Under this arrangement it was very simple, because Consolidated Dairies had the power of attorney to represent 70% of the producers. This same organization, or its interlocking organization, the New England Milk Producers Association, merchandised their milk through the large distributors. The hearing, as required by law, was perfunctory. The redrafting of the petition after the hearing was practically behind closed doors.

The promulgation of the agreement, containing as it did fixed prices for milk and cream in the area, was so oppressive that it reduced milk consumption to a minimum, particularly in schools, restaurants and hotels, where prices were fixed entirely out of proportion to the prices being paid the farmer. Conditions were so oppressive that the Secretary of Agriculture cancelled the marketing agreement and supplanted a license in its place that provided for specific payments or rates of payments to the farmers but made no provision for wholesale or retail price-fixing.

If the pressure groups representing other commodities are as successful in accomplishing special favor as the milk group were at the outset, it is easy to understand the difficulties which confront the Agricultural Adjustment Administration and the reasons why the people of Massachusetts, a non-producing state, are compelled to pay so heavily through increased prices for agricultural relief.

It is interesting to note the aforementioned commodities upon which contracts for providing rental and benefit payments for reduction of production could be made with producers, and to follow thereafter the flexibility in the act, which allows for compensating taxes where the payment of processing taxes results in competitive advantages for competing commodities or commodities which are imported from abroad. It would seem that a most liberal interpretation could be put upon this section of the act to allow compensating taxes to be placed on every edible commodity grown in the United States.

We of Massachusetts would like to feel that the eventual benefits of controlled production would become reciprocal. Thus far, it has resulted in monthly advancement of commodity prices without tangible evidence of farm money being spent for the purchase of city goods which, in the normal course of events, would have stepped up manufacturing and employment.

One of our most distressed industries in Massachusetts which, in the opinion of the division, could be assisted under the broad scope of agricultural relief, is the fish industry, although the question of whether fish is an agricultural commodity might be controversial. It certainly is within the scope of competitive commodities and is as much aligned with agriculture as the shippers of packaged bees and the walnut industry, both of which are now operating under marketing agreements.

The following are the marketing agreements and licenses in effect on December 12, 1934:

Agents, factors and commission merchants engaged in marketing, handling or distributing crude gum, cleaned gum, gum turpentine, or gum rosin.

Canned asparagus.

Distributors of crude gum, cleaned gum, gum turpentine, or gum rosin.

California dates, deciduous tree fruits, ripe olives, Tokay grapes, raisins, cling peaches, citrus, Gravenstein apples, dried prunes, asparagus (fresh). Florida celery, Florida strawberries. Texas citrus. Connecticut shade-grown tobacco. Gum turpentine industry. Shippers of packaged bees. Western Washington peas, cauliflower, and lettuce. Southern rice. Southeastern potatoes. Southeastern watermelons. Walnut industry. Northwest deciduous tree fruits.

Burley tobacco. California rice. Dry skim milk. Evaporated milk. Dark air-cured tobacco. Fire-cured tobacco. Flue-cured tobacco. Northwest surplus wheat. Stemming grades cigar leaf tobacco. Colorado fresh peaches.

Southern rice. Linseed oil. Grain exchanges. New York live poultry. Feed manufacturers. Commercial and breeder hatchery. Country grain elevators. Tobacco and loose leaf warehouseman. Flour millers. Wholesale distributors of fruits and vegetables.

Several milk licenses throughout the country.

HOUSING

HOME OWNERS' LOAN CORPORATION AND FEDERAL HOUSING ADMINISTRATION

The purpose of the Home Owners' Loan Corporation act was to relieve the distressed home owner who was facing foreclosure proceedings because of his inability to pay interest on mortgage, taxes, or to keep the property in proper repair. This is one federal agency that has been of tremendous benefit to the people of Massachusetts, and, while it is regrettable that all persons making application for this assistance have not been accommodated, over 19,000 homes have been saved through the refunding of mortgages by this corporation. Many more are in process of refunding and are awaiting Congressional authorization for a bond issue of \$1,750,000,000. The division has been informed that of the applications now on file, approximately 6,000 could be acted upon favorably if the bonds were available to refinance them.

There has been considerable criticism of the administration of HOLC in many states. This division is very happy to report that the regional and state offices of the corporation located in Boston have carried on in an efficient and co-operative manner from the outset.

In spite of the tremendous assistance that has been offered home owners through this medium, there were 11,322 foreclosures in 1934, or within 800 of those of the previous year. There is now \$156,230,800 worth of property held by state banking institutions as against \$119,333,439 a year ago. All banks have displayed a willingness to co-operate with brokers and the general public in the disposition of this property, and there is every indication that a great deal of the property now held by banks will be in the hands of private owners within the coming year.

The refunding of so many mortgages by the HOLC and the foreclosures made by banks would indicate a very distressed condition of real estate. From observations and surveys made by this division, real estate is now on the up-grade. Vacancies in the Metropolitan area have been reduced to less than 5% and, in

view of the continued necessity of families doubling up, there is an absolute need of new construction at once.

The Federal Housing Administration offers a new opportunity for our people to not only rehabilitate their present real estate but to develop and construct new property to meet the demand. The Federal Housing Administration's scope is similar to that of the HOLC in so far as it limits assistance to property of no more than four families and of a value not exceeding \$20,000. This administration does not actually loan money but insures the money loaned by banks. In the case of new construction it protects the person building his own home or purchasing from an operative builder by insisting that specific materials be utilized in the construction, so that upon completion the new owner will be assured of having full property value for the amount paid therefor.

During the first year of the FHA Massachusetts banks were prevented from co-operating to the fullest extent because of the law limiting the time for which loans could be made. This has now been corrected to coincide with the federal act, and loans can now be made up to twenty years on this type of property. It is expected, therefore, that the coming year will witness the development of many land projects which will not only provide homes at reasonable prices for many of our citizens but will also carry out the other purpose of the act, which was to provide work for laborers as well as for skilled mechanics.

There has not been any marked change in rentals during the year. In fact a tenant's market still exists. This division has never advocated high rentals, nevertheless we do recognize that owners of property have fixed carrying charges and are entitled to a return on their property sufficient to pay taxes, mortgage interest, water rates, repairs, administrative expenses, and other expenses connected with the property and still have some remaining as a profit on the equity. In most cases this has not been accomplished during the past few years. Property taxes have been higher while rental schedules have been lower. As the trend goes upward this division will be alert to prevent any tendency toward exploitation.

One of the principal causes for distressed multiple-dwelling real estate has resulted from speculative builders encouraging and authorizing concessions of from one to three months' free rent with the idea of filling up the properties to sell on a fictitious representation of income. This encouraged many people to change their apartments each year and demand a concession each time they changed, with the result that most owners were forced to give a concession in order to have their properties occupied. This practice is bad for the property owner and tenant alike. Rentals should be based on the amount needed for yearly return and the tenant required to pay monthly by equal payments on this basis.

Much has been said about loss leaders as they apply to the merchandising of commodities. The same theory applies to the merchandising of apartments on a rental basis. The owner has no more right to give a month's free rent in return for the promise of a person to occupy property for twelve months than the grocer has to give three pounds of butter away because the customer buys one pound. As soon as all home owners recognize this condition, the sooner real estate will reach the point of stability where taxes and other carrying charges can be paid when due.

The Federal Emergency Housing Corporation of the Public Works Administration has proceeded in some areas to eliminate houses that have become uninhabitable and started to construct group buildings which will provide accommodations for families capable of paying from \$7 to \$7.50 a room per month. Thus far no actual construction has taken place in Massachusetts, although two areas have been approved by the Public Works Administration. It is expected that similar \$5,000,000 projects will be undertaken in the near future at Cambridge and South Boston, Mass. The policy of the administration is to start these projects in areas where the present buildings are beyond the point of efficient or economical restoration.

With all functions of the housing phase of federal coordination progressing during the coming year, which will no doubt be augmented by the release of private capital for construction purposes, it is anticipated that there will be a revival in the building trades and a substantial increase in accommodations which are necessary to absorb an increased demand for these facilities.

MILK

Although the administration of milk control has been placed in the hands of the Milk Control Board created by the 1934 Legislature, this division has not yielded its responsibility to the people of the Commonwealth. It has continued to protest exploitative methods pursued by monopolistic groups who persist in their endeavors to obtain a monopoly of the industry in this area to the detriment of the general welfare of our citizens.

It would appear that the only possible remedy for the present situation is an unbiased investigation of the New England Milk Shed now supplying Massachusetts consumers by the Federal Trade Commission. The 73rd Congress passed a resolution directing the Federal Trade Commission to investigate conditions with respect to the sale and distribution of milk and other dairy products within the territorial limits of the United States and provided an appropriation of \$30,000 to carry out the investigation. An investigation was conducted by them of the Connecticut and Philadelphia milk sheds at a cost of \$80,000, and it required \$50,000 of money allotted for other purposes to complete it. Through the good office of Congressman John W. McCormack of Massachusetts, a request for further appropriation to the Federal Trade Commission has been asked, with his personal assurance that he will do everything possible to bring about an appropriation and investigation for this area.

From past experience there is every reason to believe that information obtained in areas already investigated is comparable with conditions in Massachusetts. Therefore, certain pertinent sections of this investigation are incorporated in this report for the purpose of showing the glaring abuses that exist in the merchandising of milk and dairy products.

EXTRACTS FROM FEDERAL TRADE COMMISSION'S REPORT OF AN INVESTIGATION OF THE CONNECTICUT AND PHILADELPHIA MILK SHEDS

Introduction and General Statement

In response to this resolution, the Commission has investigated conditions in Connecticut and in the Philadelphia Milk Shed. Particular attention has been given to the extent to which the industry is controlled by a few large distributors of milk in each of these areas. Investigation has been made of the activities of co-operative organizations of milk producers in both Connecticut and the Philadelphia milk shed. An effort has been made to disclose the exact relations between the milk distributors on the one hand and co-operative organizations of producers on the other, and to determine to what extent their joint activities have tended to fix prices to the consumer out of proportion to prices paid the producer of milk.

Investigation has been made of acquisitions and consolidations of milk companies and their tendency toward monopoly. Particular attention has been given to various practices by distributors with a view to determining whether any such practices may amount to unfair methods of competition.

During the course of the investigation, the Commission's attorneys made an examination and inspection of the files and records of the farmers' co-operative organizations, the dealers' associations, and of many of the larger distributors. A large number of farmers were visited and interviewed. Public hearings were conducted at Hartford and Philadelphia, during which producers, representatives of producer-cooperatives, and of distributor companies were heard. The transcript of these hearings is being filed with the Congress as an appendix to this report. In addition, a large number of exhibits, referred to in said transcript, were assembled. They contain valuable data bearing upon the subject matter of this inquiry and are filed at the Commission's offices where they are available for inspection.

A study has been made of State laws and regulations governing inspection of dairy farms and milk plants and the weighing and testing of milk and the manner in which they have been administered. The milk control laws of the two states have been examined and a study made of their administration to determine if possible what effect they have had on prices to the producer.

Accountants and auditors of the Commission analyzed the financial and operating results of the principal distributors in Philadelphia, Hartford and Bridgeport

for a period of years. Economists of the Commission made various analyses of supply, demand and marketing conditions in these localities.

Important Facts Developed

Important facts developed by or pertinent to this inquiry may be summarized as follows:

1. Milk production is one of the country's most important industries, and none is more important from the standpoint of health, especially to the infant and child population. Farmers derive a greater proportion of their total farm income from dairy products than from any other agricultural commodity. As shown by the U. S. Department of Agriculture Yearbook for 1934, of the total estimated gross income from farm products in 1933 amounting to \$5,985,000,000, dairy products accounted for \$1,263,000,000, or approximately 21%, which is more than the total value of the grain, cotton and cottonseed produced in the entire country in that year.

2. Each of these areas has a large co-operative organization of farmers. The Connecticut Milk Producers' Association has a membership of about 2,760 farmers producing nearly 50% of all the milk produced by the approximately 7,000 dairy farmers in the State. This Association has contracts with its members binding them to sell exclusively through the co-operative. It also has contracts with the principal dealers binding them to purchase exclusively from the co-operative. Under its contract with the dealers, the co-operative has the right to have the distributors' books audited to determine whether the producers are receiving correct amounts for their milk. This contract places a powerful weapon in the hands of the co-operative.

3. In the Philadelphia Milk Shed, The Inter-State Milk Producers' Association is the most important co-operative in that area, with membership drawn from the states of Pennsylvania, New Jersey, Delaware, Maryland and West Virginia. It has approximately 22,000 producer-members producing about 80% of the milk production in that area. This association has a contract with its members whereby it has the exclusive right to sell all of the milk produced by its members. However, it has no written contract with the dealers to whom the milk is sold. Lack of any contract requiring the dealer to permit the auditing of the dealers' books to determine whether producers are receiving proper pay for their milk has been a serious disadvantage to the producers.

4. Co-operative organizations and the large milk dealers in each of the areas have through negotiation arrived at agreements and understandings to fix prices of milk and of milk products to the consumer as well as the prices to be paid producers. In both areas investigated, by the acquisition of the principal independent distributors, the large dealer companies have been able to substantially lessen competition.

5. Under the foregoing agreements as to prices to producer and consumer, the gross margin to the dealer on milk sold for fluid consumption has remained substantially the same over a number of years. The dealer's margin in the Connecticut area since April 1, 1922, has ranged from 6 to 7c per quart, except for March, 1933, when it was 5½c. During the same period, the price to Connecticut producers per quart ranged from 4½c to 10c and the price to consumers from 10c to 17c per quart. The dealer's margin in Philadelphia since 1922 has ranged from 5.39c to 6.25c per quart while the price for Class I milk to the producer has ranged from 3.61c to 8.82c per quart and the consumer price from 9c to 15c per quart.

6. Correspondence was found in the files of a large Philadelphia distributor indicating that agreements and understandings have been arrived at to fix prices to consumers in other milk sheds. Norfolk, Virginia, and Detroit, Michigan, were especially mentioned.

7. The investigation has disclosed that a serious condition exists among many producers both in Connecticut and the Philadelphia Milk Shed. Many farmers, who depend largely on their dairy business for a livelihood, have been reduced to financial distress, due at least in large part to the low average price received for their milk. Many have mortgages on their farms on which interest payments are in default. Others have abandoned dairy farming and disposed of their herds.

8. Dairy farmers of the Connecticut and Philadelphia milk sheds lost in excess of \$600,000 during 1934 through practices by distributors for most of which it is difficult to find justification. These practices included underpayments to producers by dealers and excessive hauling charges. This estimate does not include excessive country station charges to producers. Prevalence of these practices both in Connecticut and Philadelphia raises the question as to whether similar practices are being employed in other areas.

9. The average price paid producers by eleven Philadelphia milk distributors at the point to which the farmers delivered milk in October, 1934, on a volume of 23,542,174 quarts, was 4.926c per quart. Two Connecticut distributors purchasing 1,534,747 quarts of milk in June, 1934, paid the farmers 5.673c per quart f.o.b the point to which the farmer delivered this milk.

10. Rates of return on total milk investment for a group of Philadelphia distributors, including the larger companies, ranged from 13.27% in 1932, down to 5.22% in 1934. The smaller companies in this group showed a loss for the last two years. Exact data for earlier years are not available for the purposes of this report, but the rates of return were probably higher than the 1932-34 period. During the six years, 1929 to 1934, inclusive, the National Dairy Products Corporation received from its two subsidiaries in the Philadelphia area approximately \$27,500,000 in dividends, representing more than 70% of its investment in the two Philadelphia companies acquired. In Connecticut, rates of return to the distributors on total milk investment ranged from 12.31% in 1932, down to 4.14% in 1934. From 1929 to 1931, inclusive, the rates of return to the Connecticut companies were substantially higher, ranging from 18.83% to 20.21%. Information on dividend payments by the Connecticut companies was not obtained.

11. Evidence was developed indicating that in both the Connecticut and Philadelphia milk sheds, dealer companies have at times been in part responsible for the creation of a milk "surplus" by the importation of milk products from other producing areas. Much of this importation is in the form of fluid cream and is sold as such. Some has been converted back into fluid milk and so sold. These importations have at times tended to create a surplus, which results not only in local producers receiving a lower price on the quantity of their production so displaced, but is taken into consideration in the fixing of prices, and to that extent tends to depress prices to local producers. Designations of classes of milk in the industry, such as Class I, Class II, etc., have reference to the uses for which it is sold and not to the quality of the milk. The same quality of milk may be sold in four or five different classes, each carrying a different price to the producer.

12. Two of the principal distributing companies operating in the milk sheds covered by the Commission's inquiry are the National Dairy Products Corporation and the Borden Company. In 1931, the president of the National Dairy Products Corporation received a salary and other compensation totaling \$187,947; in 1932, \$171,099; in 1933, his salary as of September 1 was at the rate of \$108,000 per year, not including bonuses or other compensation. During 1931, eleven other officers of this corporation received salary and other compensation ranging between \$30,000 and \$83,120; in 1932, ten officers of the corporation other than the president received salaries and other compensation ranging from \$25,000 to \$93,850. In 1931, the president of the Borden Company received salary and other compensation totaling \$180,030; in 1932, \$108,350; in 1933, his salary rate as of September 1 was \$100,000 per year, exclusive of any bonus or other compensation. In addition, in 1931, fourteen other officers of the corporation received salaries and other compensation ranging from \$30,000 to \$107,225; in 1932, eleven officers of the corporation other than the president received salary and other compensation ranging from \$20,000 to \$63,200. The foregoing figures are taken from information furnished by these corporations to the Federal Trade Commission and transmitted to the Senate on February 26, 1934, pursuant to Senate Resolution 75, 73d Congress, First Session.

13. The investigation developed that the National Dairy Products Corporation has a substantial business in the sale of fluid milk and cream in both the Connecticut area and in the Philadelphia Milk Shed. The combined sales of all classes of milk by the subsidiaries of this corporation in Connecticut, as disclosed by the

records of the Connecticut Board of Milk Control, show that that corporation controls 39.3% of the milk sold in Hartford, 30.5% in New Haven and 14.7% in the entire State of Connecticut. The National Dairy Products Corporation, through its subsidiary, the Supplee-Wills-Jones Milk Company, also controls a substantial percentage of milk sold in the Philadelphia Milk Shed, but the exact percentages were not obtained.

14. The Borden Company, another nationally known milk company, has no substantial interest in the milk industry in Philadelphia. However, the Borden Company purchased two milk companies, namely, the Mitchell Dairy Company in Bridgeport, Connecticut, and the Norwalk Dairies in Norwalk, Connecticut. Both of these companies have combined as the Mitchell Dairy Company, Inc. This acquisition gave the Borden Company 33.5% of the milk business in Bridgeport and 7.9% of the entire milk business in the State of Connecticut.

15. The United States Dairy Products Corporation, a large distributor in the Philadelphia shed, acquired the Scott-Powell Dairies, of Philadelphia, during the latter part of 1922 as the nucleus to which approximately 50 other milk companies have been added by purchase. This corporation extended its business into other milk sheds until it became one of the ten largest dairy companies in the world. It is now being operated by trustees appointed under the new Bankruptcy Law, pending reorganization.

16. The five states supplying milk to the Philadelphia shed have laws and regulations governing the sanitary conditions under which milk is produced and marketed, some of which conflict and have thus worked hardships on the producers. Moreover, municipal and other local sanitary requirements have added to this burden.

17. Duplication of inspection by different agencies, including state, city and other local authorities, as well as dealers, and the requirement upon the producer to meet the different interpretations of the varying regulations, and in some instances even the whims of the individual inspector, have worked a considerable hardship on the producers in the Philadelphia Milk Shed.

18. For hauling milk to central plants, the Connecticut Milk Producers' Association, through its locals, has provided means of transporting milk from the farms to creameries and receiving plants at charges agreed to by the Association. But the only important co-operative in the Philadelphia area has taken no action in regard to hauling milk or the charges therefor. Dealers in the Philadelphia area have assumed this activity and the producers must pay such hauling charges as the distributors may assess.

19. In Connecticut, the co-operative organization assigns each producer-member to a particular distributor. In Philadelphia, while the co-operative organization has a contract with each producer-member to market his milk, it does not have the right to assign a producer to any particular dealer and once a producer begins shipping to a distributor, it is not possible for him to change to another distributor, even though he may be dissatisfied, without the permission of the distributor.

While the resolution directed the Commission to report as soon as practicable the results of its investigation, "together with its recommendations, if any, for necessary remedial legislation," the Commission's judgment is that it is not wise to form conclusions or make recommendations based on the investigation of only two milk sheds.

The resolution contemplated a country-wide investigation, which the Commission has been unable to make because of lack of funds made available. As to whether or not the investigation shall be continued, and to what extent, depends upon whether or not additional funds shall be made available.

JEWISH BREAD INVESTIGATION

Acting upon complaints filed with this division, an investigation has been made of the cost of producing and distributing what is commonly known as "Jewish bread and rolls." The division finds that the production of this commodity is governed by Jewish dietary laws, which is therefore limited to bakeries specializing in this commodity. It eliminates the possibility of volume production, as the larger bakeries do not attempt to produce this product.

Our investigators found that during the past year, labor disputes have caused a price war, during which time these bread and rolls were produced and sold below cost. These disputes have recently been terminated, but many bakeries which were operating during this period have withdrawn from production. These bakeries in most cases are the ones that were selling at prices lower than cost. The operating cost of bakeries now producing these foods varies in accordance with the labor cost in each instance.

In the period just prior to the labor controversies, the retail price of bread was 10c for a 1½-pound loaf. The national processing tax which was promulgated on wheat added \$1.38 to each barrel of flour, the price of which has risen in excess of the processing tax during this period.

The division finds that about one-third of the cost of production is represented by ingredients; one-third covers the overhead, which includes rent, power and light, fuel, transportation, insurance, repairs and equipment, while the remaining third represents the cost of labor which, of course, will vary according to the policy of wage schedule of the individual bakery. Bakeries capable of producing and distributing this commodity for lower than average cost and thereby creating the possibility of consumer-saving should be allowed to do so unrestrained.

The division does not condone the exploitation of a people whose purchases are restricted in accordance with a custom or belief. We find after investigation that such is not the case with respect to the present average prices of Jewish bread and rolls. Prices now being charged are not exorbitant, and the producers and retailers of this commodity are not making more than a normal profit. We therefore urge the consumers of this commodity to proceed with their purchases in an orderly manner.

ITALIAN BREAD INVESTIGATION

A petition was filed with the division containing ten thousand signatures protesting the prices being charged for so-called "Italian bread." As a result of this complaint, conferences were held at the office of the division and later a public hearing was held in the Gardner Auditorium. It was determined at the conclusion of this hearing because of the contradictory testimony presented that the only way to arrive at the actual cost of producing this bread was for one of our investigators to visit bakeries and observe the production of a barrel of flour and the other necessary ingredients into bread. This was done and it was found that the ingredients and labor cost was \$.047 a pound loaf. This amount does not take into consideration the cost of capitalization, delivery, administrative overhead, insurance, rent or taxes, or bad accounts.

The average price of white bread throughout the country is \$.083 a pound. The cost of ingredients of white bread in comparison with Italian bread are not exactly comparable, because of the fact that water is used in Italian bread where milk is used in the regular white bread production. Nevertheless, it must be taken into consideration that white bread is produced on a volume basis, while Italian bread in most instances is produced by hand and not in any great volume from individual bakeries.

Although from a sentimental standpoint, this division would like to recommend low prices of all commodities, we must not lose sight of the fact that prices cannot be guided by sentiment and that each person in business is entitled to conduct that business at a profit.

It is hardly fair to incite people of a certain racial group into believing that they are being exploited simply for the purpose of gaining personal popularity at the expense of those engaged in business. The utilization of Italian bread is established by custom. Individual bake shops have been established to provide for this demand. Most of these bakeries are required to adhere to NRA regulations, which govern the hours of labor. This regulation alone has increased the cost of production 10% in the past year and a half through the reduction of working hours and the necessity of employing more labor.

The principal reason for low-priced Italian bread in certain instances was due to the fact that certain bakeries do not come within the scope of NRA in that the owner and members of his family do the baking, distributing, and selling themselves and, therefore, pay themselves no wages or carry any amount for wages in

their cost of operation. This division cannot consider bakeries of this kind in its compilation of facts concerning an industry; we must adhere to the principle of combining all operating expenses before arriving at a conclusion, as to whether a certain commodity is being sold at too high a price.

Having conducted an exhaustive investigation into the cost of producing and distributing Italian bread, this division finds that Italian bread cannot be sold at retail profitably on the basis of \$.06 a pound, which is the price demanded by the petition filed with this division.

INSTALLMENT BUYING

The question of the benefits of the installment or partial payment method of purchasing goods has been a subject of much debate during the past few years of low-family income. While the division is of the opinion that a certain degree of credit is necessary, merchants should combine good business methods with salesmanship for the protection of both themselves and the purchaser. During the period of high and steady incomes, great numbers of persons purchased to the full extent of that income with heavy mortgages against future earnings; when these earnings were reduced, they found themselves unable to meet their obligations.

It has been estimated that about two billion dollars worth of installment debts are owed in the United States at the present time, large numbers of which are showing little, if any, reduction during this period. Installment buying is necessary to maintain the American standard of living. A large list of necessities as well as luxuries and semi-luxuries are included in these purchases which otherwise would be beyond the reach of the average consumer.

The division believes, however, that many persons have been sold large bills of merchandise without regard to the character and income of the individual. If business failures and losses by the consumer of merchandise purchased are to be avoided during depression periods, merchants must see to it that the purchaser is only sold what he wishes to purchase and is not the victim of high-pressure salesmanship to the detriment of both himself and the consumer.

PETROLEUM PRODUCTS

Gasoline prices for the most part were, in the opinion of the division, fair and reasonable during the year when it is considered that a 4c per gallon gasoline tax was included in the retail price. Keen competition between service stations in certain districts undoubtedly affected the entire price structure and helped to maintain lower prices.

The division received some complaints relative to price differentials between certain adjoining communities and was able, in most instances, to obtain satisfactory adjustments for the territory concerned. This price differential condition is caused by the so-called "zone system" in effect by most distributing companies, and the division has attempted to have the larger organizations readjust this delivery system in a manner that will assure all communities of their motor fuel on a cost plus basis from supply depots. While most companies are in accord with the division that some such plan is desirable from the consumer standpoint, no definite action has been taken to correct the situation.

The total registration of motor vehicles in Massachusetts for 1934 was 946,000, compared to 1,025,000 in 1929 and 361,000 in 1921. Compulsory automobile insurance would probably keep a large number of these cars off the roads through inability to raise the amount necessary for insurance, if it were not for the installment payment system through which monthly payments are made with the inclusion of a small carrying charge and insurance issued upon receipt of the first payment.

Car owners are undoubtedly overloaded with taxes, insurance, and other charges, but it should be borne in mind that many of these charges are for the protection of the owner as well as for the welfare and property of others.

The use of oil as a fuel has continued to increase and, with the installation of thousands of range oil burners yearly, it has become a strong competitor of other fuels used in home heating.

Prices were quoted at about the same level as for the previous year, with

6½c to 7c per gallon being the average charged for fuel oil, and 8c to 8½c per gallon for range oil.

A survey of oil used for heating purposes is made by the division at the end of the coal year, and the results of this survey are contained in the fuel and light section of this report.

MISCELLANEOUS ACTIVITIES

There is a tendency during a period of rising commodity prices for certain people to capitalize on a popular issue which affects the economic structure of every home by declaring publicly that prices are too high.

It is the duty of this division to study and investigate the circumstances affecting prices of commodities and to make public the results of these investigations. Prices, in the opinion of the division, are too high for the present average earning power of our citizens. It should be borne in mind, however, that wholesale and retail merchants have not become the beneficiaries of these high prices; in fact prices of farm commodities have increased 90% in a year and a half, while but 36% of this increase has been passed on in retail prices. Information concerning wholesale and retail prices of most commodities is obtained daily by the division and should the occasion arise when any of these products are presented for sale at exorbitant prices, the public will be officially informed through the press.

It has become the custom for many of our citizens to either telephone or call at this office to discuss their personal economic problems. The division considers it a duty to relieve distress, if possible, be it individual or for the general welfare of the Commonwealth. During the past year over 12,000 persons visited the offices of the division seeking aid and advice, and we were able to render some service in most of the cases handled. Through these visits the division has prevented foreclosure of thousands of homes; expedited refinancing through the Home Owners' Loan Corporation; prevented repossession of personal property purchased on the installment plan; prevented recurrence of wage attachments by assisting the employee and creditor to arrive at a satisfactory compromise for payments, and given assistance in many other cases of varied nature.

TREND OF LIVING COSTS

The monthly compilation and publication of the cost of living index for Massachusetts has been continued in connection with the duties of the division to investigate the circumstances affecting prices of commodities which are necessities of life.

Demand for this information during the past few years has made it a most important function of the division. The nature of requests for this service, which include comparative information relative to index numbers, purchasing power, and individual commodity prices for various monthly and yearly periods, require much time in preparation and study on the part of the personnel of the division.

The value of this information is indicated by the large number of requests received during the year from business, industry, mercantile establishments, civic, welfare, government and labor groups, as well as the public at large.

Retail prices of a representative group of commodities and services are used as a base for the index, and prices of the same group are obtained monthly throughout the State in the compilation of the present index numbers.

During 1934 the combined index continued on the upward trend. It started in April, 1933, and increased from 128.2 in December, 1933, to 133.9 in December, 1934. Comparative index numbers for 1933 and 1934 are given below:

Combined Cost of Living Index — 1913 Equals 100

Month	1933	1934	Month	1933	1934
January	121.2	128.8	July	124.3	132.9
February	119.8	130.3	August	125.7	133.6
March	118.5	131.1	September	127.4	135.0
April	118.9	130.8	October	128.8	135.0
May	119.7	131.6	November	128.7	134.7
June	121.0	131.9	December	128.2	133.9

Expressed in dollars these figures indicate that \$134.70 was required in November, 1934, to purchase the same combination of necessities as cost \$128.20 in December, 1933, and \$100 in 1913.

This continued increase in living expenses in a period of low family income and with millions of people in the country forced to accept either direct or indirect relief has become a matter of much concern to both government officials and the public at large. Standards of living have been reduced in spite of the efforts of the average family to retain some of the comforts and conveniences obtained during a period of high wages and steady income.

While projects backed by government money have supplied employment to large numbers of our citizens, thereby removing them from local welfare lists or obviating the necessity of seeking welfare aid, the average wages paid is entirely inadequate to meet the ordinary expenses of the average family. Property owners unable to collect rents due from tenants are faced with the threat of actual loss of property, which often means the loss of life savings which have been put in equities, through inability to meet taxes and mortgage payments. Many home owners are forced to seek government or welfare relief.

Incomes of this great mass of our people are also insufficient to meet any kind of payments on debts contracted during a period of better times and steady incomes. This condition has placed a burden on the seller, who must make an effort to collect at least a part of his outstanding accounts if he is to continue to do business, and often results in repossession of merchandise in an effort to salvage a part of the losses. Such action causes additional hardship to the family concerned and further disrupts the home which it is striving to maintain on a minimum of income.

It is evident that more money must be placed at the disposal of the average consumer to create a demand for additional goods, and such demand must be in evidence before the production of industry and business will require the services of the people now unemployed. This problem only time can solve, and we must rely on government authorities to lead the way backed by capital, industry, business and allied groups, and the general public.

ELEMENTS OF THE BUDGET

Food. — Food is considered the most important item in the family budget and is allotted 37.6% of the total in the index compiled by the division. This index is based on retail prices obtained monthly from both chain and service stores for 37 staple food commodities. During the first nine months of 1934, the food index increased over 12% from 101.6 in December, 1933, to 114.1 in September, 1934. Slight decreases were noted, however, during October and November.

A study of price increases indicates that individual food items showing higher prices are those included in the national government's control program, such as meats, meat products, eggs, milk, butter and lard; while prices of products not so controlled, such as potatoes, were at a lower level than the previous year.

Consumers councils and other official and non-official organizations are doing much to aid families and individuals in the selection and preparation of food purchases and by furnishing information relative to current prices and available supplies. However, with prices of the most important foods showing large increases and with little if any increase in the family income, many of our citizens are faced with ever-increasing indebtedness to provide other necessities for their families, as an increase of 5% in the food index affects combined expenditures more than a 10% increase in the clothing, 25% in the fuel and light, or 7% in the shelter section.

The greatest increases in the food section occurred in the price of meats with the combined meat index increasing from 96.8 in December, 1933, to 128.6 in September, 1934, or about 33%. Lower prices during October and November, however, reduced the index to 118.5. Much of the increase during the year can be attributed to the federal government program to increase the farmer's purchasing power, augmented by the long drought during the summer. The same drought, however, is undoubtedly responsible for the drop in prices during the fall months, as the shortage of feed and high grain prices forced farmers to market cattle, calves and hogs earlier than intended, which resulted in increasing the available

supply. Many of these were at lower than average weight and would ordinarily have been held until 1935.

The government's Emergency Drought Relief Program was also inaugurated to aid stricken farmers, and stock was purchased in large quantities to save it from starvation. Meat of these animals was canned for distribution through relief agencies. It is reported that about eight million cattle and calves and nearly four million head of sheep have been purchased by the government in this program, a large amount of which has been processed chiefly into canned meat. The amount of this government meat distributed is not known, but the entire government purchase is undoubtedly included in the consumption figure for the year which is cited as one of the highest on record.

Due to the drought, the Drought Relief Program and the Production Control Program, it is predicted that the number of meat producing animals available for slaughter in 1935 will be considerably smaller than in 1934, with resultant higher prices. However, the latter depends upon the amount of money available from the family income to purchase this important food item. Surplus stocks as the result of curtailed consumption would undoubtedly force lower prices.

Clothing.—The clothing index, which is given an allowance of 12.8% in the total budget, increased during the year from 143.4 in December, 1933, to 149.9 in November, 1934, due chiefly to increased costs in the manufacture of garments and higher prices of cotton goods.

Wide variations of styles and different types of tailoring causes the clothing item to be most difficult to standardize. The index, therefore, is largely based on the sampling method or on the price of goods entering into the production of garments rather than on prices of the finished product.

Foreign-made clothing and shoes continued to flood our market to the detriment of our New England textile and shoe industries. These articles of wearing apparel, coming from countries with low wage scales and low standards of living, are usually placed on the market at prices below the cost of manufacture of American-made goods. While many campaigns have been started to return the market to domestic industries, buying at present is dependent upon prices to the great mass of our people who must purchase in a manner to receive the most available for their money.

Massachusetts winters are long and cold, and it is necessary, therefore, to purchase larger quantities and greater varieties of clothing than is necessary in some other sections of the country. This condition increases the amount which must be allowed for proper protection against the elements, in order that additional money will not be required for medical attention.

It is hoped that some solution to the problem will be worked out in the near future and real prosperity returned to our Massachusetts industries and to the great numbers of our people which they formerly employed.

Shelter.—The item of shelter, which is given a weighting of 21.8% of the budget, was slightly higher than during 1933, the index being 135.0 in December, 1933, and 139.0 in November, 1934.

During the year the division has continued to assist both landlords and tenants in solving their housing problems, which have been large in number and of a varied nature. Serious problems have been created for both parties, due to the inability of many tenants to meet rental payments. Many landlords were forced against their own desires to evict tenants because of lack of money to meet obligations against the property.

Other types of cases included lack of sufficient heat, water shut offs, heaters, gas and electric equipment, refrigeration, etc. In most cases handled, the division was able to be of assistance.

Many vacancies still exist in rented property for those receiving a steady income, but families receiving welfare aid and those working on government relief projects find it difficult to obtain living quarters, as owners are reluctant to rent unless the rental money is assured over a period of time. With a return to normal times, however, it will be necessary to supply many additional living quarters to care for our population. Such action should restore prosperity to the building industry, which has keenly felt the effects of the depression.

Fuel and Light.—Fuel and light, while allotted only 5% of the total living costs budget, is an important item to the Massachusetts consumer, as the obtaining of fuel of some type is necessary to the existence of the family during our severe Massachusetts winters. Fuel represents 61% in the total of 100% in the fuel and light budget.

While domestic-sized anthracite is still the leading fuel used in Massachusetts, it is fast being displaced by oil, coke, and other fuels. During the five-year period between the 1928-1929 and 1933-1934 coal years, anthracite consumption decreased from 5,000,000 net tons to less than 3,000,000 net tons; the use of oil during the same period increased from 80,000,000 gallons to 400,000,000 gallons, and the use of coke from 600,000 net tons to 1,300,000 net tons.

The division has continued the compilation and distribution of information relative to the fuel situation. This data relative to receipts, deliveries, stocks, imports, etc., and other special information with regard to fuel has been in great demand during the past three years, not only by local dealers and organizations, but by federal and state government officials, business representatives of coal producing and consuming states, and by railroads covering this territory.

The yearly survey to determine the relative importance of various fuels used in heating the million homes of Massachusetts is conducted at the end of each coal year. Comparative results for the last two coal years are given below:

Fuel	1932-1933	1933-1934
Anthracite (Domestic sizes)	2,968,000 net tons	2,938,000 net tons
(Buckwheat)	155,000 " "	172,000 " "
Coke	1,061,000 " "	1,318,000 " "
Bituminous Coal	700,000 " "	800,000 " "
Briquets	101,000 " "	90,000 " "
Other Manufactured Fuel	—	52,000 " "
Oil	300,000,000 gallons	400,000,000 gallons
Gas (estimated)	2,425,060,000 cu. ft.	2,248,982,000 cu. ft.

Anthracite deliveries were undoubtedly affected to some extent by the discontinuance of coal deliveries by the Federal Surplus Relief Corporation. This organization provided much assistance to ERA workers and welfare recipients in the procuring of fuel during 1933.

Large numbers of consumers who, during the last few years, have changed from the use of anthracite to coke, are becoming greatly dissatisfied with the prices charged for this fuel, which are based on the prices charged for anthracite rather than on the cost of production. If coke producers continue this policy and the anthracite producing group is able to materially reduce prices through lower costs of production and transportation, the latter group has a fair chance to regain much of its lost tonnage at the expense of the coke industry, which is undoubtedly taking advantage of the consumer. Coke prices are protected from investigation by public utility control. All arguments for lower prices of this fuel are answered by statements that lower coke prices will result in higher gas rates.

Anthracite prices during the year showed little change from 1933, but continued lower than during 1932.

Prices charged for gas and electric service are controlled by the State Department of Public Utilities and, while no changes of major importance have occurred during the year, a reduction in several localities has been predicted for early in 1935.

The increased use of range oil has continued and probably accounts for much of the increase in oil deliveries to consumers, as they are able to purchase this fuel in smaller quantities and the type of burner used may be obtained at a fairly nominal price with small weekly payment charges.

Sundries.—The miscellaneous assortment of goods and services, which can not be included in other major sections of the budget, are grouped under the heading of sundries, and given an allowance of 22.8% of the total budget. This group includes such items as ice, carfare, medical attendance, insurance, church, tobacco, reading material, house furnishings, organizations, theatres, etc.

The standard of living can be measured quite accurately by the amount available for these miscellaneous expenditures, as it is a known fact that in countries having low living standards the amount allotted these items, many of which might be classified as luxuries or semi-luxuries, is negligible. Educational advancement, entertainment, home conveniences and comforts increase with higher income, as food, clothing, fuel and shelter requirements must receive first consideration. A continued period of reduced income, such as has faced the majority of our people during the last few years, will necessarily reduce standards in this country which, before the depression period, led the world in the matter of decent standards for the great mass of our people.

The matter of indebtedness continues to be a great source of worry to many families of reduced income, not only in cases of debts incurred during a more prosperous period, but in new obligations which are assumed to meet the demands of prior creditors and to retain control for a time at least of goods on which money is due and action is threatened in the form of repossession. The new indebtedness is usually in the form of borrowed money, and many cases have come to the attention of the division in which the monthly obligations assumed are far beyond what the borrower can afford to pay, but a desperate hope for better breaks in the near future is given as the excuse for such action.

The division has acted as arbiter between merchant and consumer and lender and borrower in hundreds of cases during the year. In the majority of instances it has been successful in reducing payments or making other adjustments which are usually beneficial to all parties concerned.

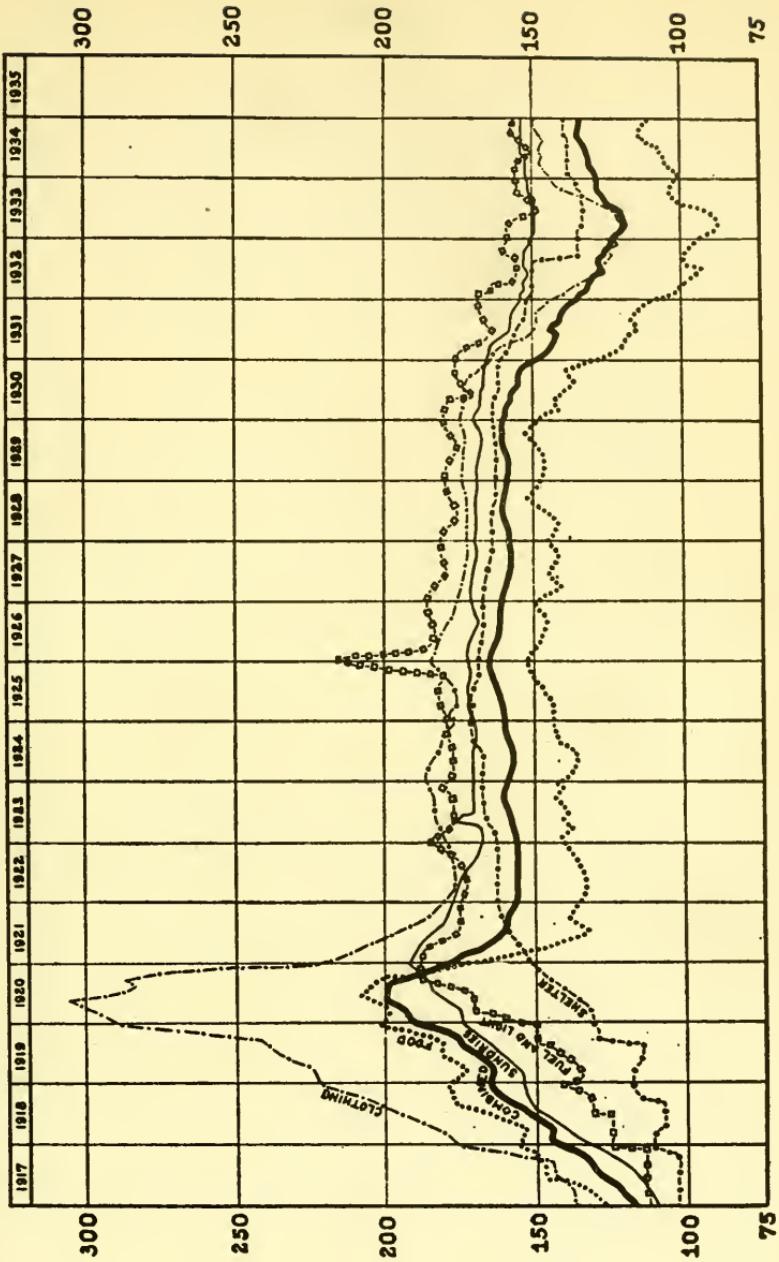
Most creditors have shown a willingness to co-operate with the division at all times and, in some instances where furniture has been removed through repossession, other dealers, at our request, have supplied the necessary furnishings to maintain the home as a gesture of charity. Such action is to be highly commended. Action of repossession of goods which, in the present market, can be sold at only a fraction of the amount owed, is to be condemned, as we believe that most debtors are honest and intend to meet their obligations when money is available, and the so-called "dead beat" could easily have been determined by proper investigation.

Insurance is the only item of savings for which an allowance is made in the budget, as nearly all families carried some sort of protection against sickness and death prior to the present depression. While some families have found it necessary to reduce the amount of this protection or surrender policies for their cash value, it is a known fact that few households have failed to retain at least a part of this protection.

Although many of our people are receiving less than a normal living income for the family, the report of the bank commissioner indicates that many of those who are employed at incomes which are above living expenses are still thrifty, as deposits in Massachusetts savings banks, trust companies, and co-operative banks, including Christmas Clubs, increased over ten million dollars between 1933 and 1934, from \$2,615,945,809 to \$2,625,946,768.

The sundries index increased from 151.1 in December, 1933, to 153.6 in November, 1934.

TREND OF COST OF LIVING IN MASSACHUSETTS, 1917-1935:
BY MAJOR ELEMENTS
(Base — 1913 = 100)



APPENDIX I
COST OF LIVING CURVE

Statistical Method and Tables of Proportion and Prices

The division and its predecessor the Special Commission on the Necessaries of Life have used in the computation of the Massachusetts cost of living index the same percentages for the major sections of the budget as those used by the National Industrial Conference Board, until July of 1931. These weights, together with others which applied to many individual items of the budget, were changed in 1931 after much study and investigation, and the division believes that the new allocation of weights represents the relative importance of items and groups to a greater degree of accuracy.

The present allocation of weights for the major budget sections are as follows:

Food	.	.	.	.	.	.	.	.	37.6
Clothing	.	.	.	.	.	.	.	.	12.8
Shelter	.	.	.	.	.	.	.	.	21.8
Fuel and Light	.	.	.	.	.	.	.	.	5.0
Sundries	.	.	.	.	.	.	.	.	22.8

In computing an index of living costs, a list of representative articles in common use is first selected, and it is then necessary to assign importance to them in the total, in proportion to the extent to which they are commonly used. Food represents a much larger expenditure than ice or fuel; and in the list of foods a 20 per cent increase in the price of meats is much more important than a hundred per cent increase in the price of pepper or salt. The proportions assigned to the various commodities are called weights or weightings, and an index so constructed as to recognize the relative importance of different articles is called a "weighted index." The list of articles and weightings adopted by the division are given in detail in Tables 1 to 5, inclusive.

Having selected the list of commodities, some particular time must be chosen as a basis of comparison, and all prices at that time are called base prices, represented by 100 per cent in the scale. For the Massachusetts index, the calendar year 1913 was selected as a base year because this gave a true pre-war picture, and because this is the base used in the widely quoted index of the U. S. Bureau of Labor Statistics. Monthly quotations have been secured before and after the basic period, and each quotation is divided by the basic quotation to give the index number for the later month. Monthly quotations since 1910 have been used in the case of foods. Thus the basic, or 1913, quotation on flour was 91 cents per one-eighth barrel bag, and in November, 1934, the price was \$1.29, which, divided by the base, gave the index number for flour as 141.8 in November, 1934. Each quotation is in turn divided by the base price, and a table of index numbers, or percentages, is the result. A table is made for each commodity, and then the index numbers are combined using the weightings to which reference has been made. A different selection of commodities and a different selection of weightings will cause the indices to be quite different. Each is a true presentation of certain facts; no index can present all of the facts. In its studies the division has endeavored to choose not only the most necessary commodities, but also to combine them in proper proportions, so that a fair presentation is made of conditions in Massachusetts.

Some idea of the magnitude of work involved in making an index may be had when it is realized that over 400,000 computations were made in constructing the original index of living costs.

FOOD INDEX

The index of foods, which has a weighting of 37.6 in the total, is a composite based upon the selling prices of thirty-seven articles of food. These articles of food are assigned weights in accordance with their relative importance. The allocation of these weights follows:

Table 1.—Allocation of Commodity Weights in the Food Index

Fresh beef	1,605	Tea	187
Salt beef	242	Coffee	287
Fresh hog products	379	Sugar	518
Salt hog products	361	Molasses	45
Other meat	363	Flour and meal	480
Poultry	301	Bread	526
Fish	298	Rice	57
Eggs	570	Potatoes	457
Milk	788	Other vegetables	476
Butter	881	Fruit	253
Cheese	75	Vinegar, pickles and condiments	80
Lard	241	Other food	530
Total			10,000

Table 2.—List of Commodities in Combinations Included in the Food Index

Fresh beef: Steak, sirloin steak, and rump steak. Roasts and stews: Chuck roast, round beef. (The above cuts are given equal weight in the item of fresh beef.)

Salt beef: Fancy brisket.

Fresh hog products: Fresh pork loins.

Salt hog products: Ham, bacon, salt pork. (The above cuts are given equal weight in the item of salt hog products.)

Other meat: Lamb. Veal. (Lamb is given a weighting of 2 and veal 1 in the item of other meat.)

Poultry: Fowl.

Fish: Salt cod. Fresh haddock. (The above are given equal weight in the item of fish.)

Flour and meal: Wheat flour. Corn meal. (Flour is given a weighting of 3 and corn meal 1 in the item of flour and meal.)

Other vegetables: Onions. Canned tomatoes. Canned peas. Canned corn. (The above are given equal weights in the item of other vegetables.)

Fruit: Evaporated apples. Prunes. (The above are given equal weights in the item of fruit.)

Other food: Dried beans. Oatmeal. (Dried beans are given a weighting of 2 and oatmeal 1 in the item of other food.)

SHELTER INDEX

The index of shelter, which has a weighting of 21.8, is based on rentals charged for many houses in many parts of the Commonwealth. These ranged in 1910 from \$12 to \$32 per month, and in November, 1934, from \$20 to \$50 per month. The list includes single, two-family, and three-family houses, and middle-priced apartments, heated and unheated, but does not include mercantile or office buildings.

SHELTER INDEX

The index of clothing, which has a weighting of 12.8 in the total budget, is derived from quotations on the following articles. The weighting of the various articles of clothing, as combined in the clothing index, is also shown.

The standard blue serge has been used as the basis for quotations for men's outer garments. Overcoats have varied in weight and style, and it has been almost impossible to find a standard for quotation. Overcoating fabric prices of uniform weight have, however, advanced in the same ratio as blue serge prices and, therefore, the index of the serge suit cost, which is almost identical with the index serge fabric costs, has been used as a basis for the suit, overcoat and trousers item. For night garments the composite of cotton fabrics has been used, as all cheaper cotton fabrics have advanced in nearly the same ratio, and the quotation will therefore cover night garments made of either canton or domet flannels or long cloth. In the list of women's clothes the same index based upon blue serge has been used for the topcoat, suit and street dress. The items of nightgowns, slips, kimonos, waists, house dresses and aprons are combined, and the average index of cotton piece goods has been used.

Table 3.—Allocation of Weightings in the Clothing Index

Men's

Overcoats, suits, trousers	. . . . .	48	Shirts	. . . . .	. . . . .	. . . . .	7
Shoes	. . . . .	9	Collars	. . . . .	. . . . .	. . . . .	1
Hats	. . . . .	6	Underwear	. . . . .	. . . . .	. . . . .	3
Gloves	. . . . .	2	Night garments	. . . . .	. . . . .	. . . . .	3
Socks	. . . . .	5					
Total	. . . . .						84

Women's

Suits, topcoats, street dresses	. . . . .	42	Gloves	. . . . .	. . . . .	. . . . .	2
Underwear	. . . . .	4	Hosiery	. . . . .	. . . . .	. . . . .	7
Waists, kimono, house dresses, aprons, nightgowns, slips	. . . . .	10	Corsets	. . . . .	. . . . .	. . . . .	2
Shoes	. . . . .	8	Hats	. . . . .	. . . . .	. . . . .	5
Total	. . . . .						80

FUEL, HEAT AND LIGHT INDEX

The index for fuel, heat and light, which has a weighting of 5.0, is based upon selling prices of coal and kerosene throughout the State, and upon the rates for gas and electricity in the following cities: Boston, Springfield, Worcester, Lawrence, Lowell, New Bedford and Fall River.

The weightings assigned to these different commodities are based upon a study of family expenditures, and are gauged to cover conditions in wage-earning families throughout the State. The weightings are as follows:

Table 4.—Allocation of Weightings in the Fuel Index

Coal	. . . . .	61	Gas	. . . . .	. . . . .	. . . . .	20
Kerosene	. . . . .	4	Electricity	. . . . .	. . . . .	. . . . .	15
Total	. . . . .						100

SUNDRIES INDEX

For sundries, substantially the same list of commodities that is quoted in the report of the National Industrial Conference Board (Research Report No. 22) has been used with the addition of ice. The list, together with weightings assigned to the different commodities, is as follows:

Table 5.—Allocation of Weightings in the Sundries Index

Ice	. . . . .	847	Tobacco, etc.	. . . . .	. . . . .	. . . . .	589
Carfare	. . . . .	1,056	Reading	. . . . .	. . . . .	. . . . .	934
Entertainment	. . . . .	902	House furnishings	. . . . .	. . . . .	. . . . .	1,834
Medicine	. . . . .	1,015	Organizations	. . . . .	. . . . .	. . . . .	879
Insurance	. . . . .	1,111	Candies, soft drinks, etc.	. . . . .	. . . . .	. . . . .	322
Church	. . . . .	511					
Total	. . . . .						10,000

It should be noted that no provision is made in the above classification for savings other than insurance.

Table 6.—Cost of Living Index Numbers by Elements

1913

ELEMENTS	January	February	March	April	May	June	July	August	Septem- ber	October	Novem- ber	Decem- ber
Food	98.2	96.9	97.9	99.7	99.3	101.4	102.2	101.5	100.5	101.7	101.8	101.2
Clothing	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100.9	100.9	100.9	100.9
Shelter	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fuel and light	104.3	102.2	102.2	95.7	95.7	95.7	97.8	100.0	100.0	102.2	102.2	102.2
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Combined	99.4	98.7	99.2	99.6	99.4	100.3	100.8	100.6	100.2	101.0	101.0	100.8

1914

Food	102.1	101.9	101.6	99.5	98.9	101.1	103.3	105.3	105.7	107.2	105.0	103.9
Clothing	101.5	101.7	101.7	101.7	101.7	101.7	101.7	101.7	102.0	103.3	103.3	103.3
Shelter	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5	103.5
Fuel and light	101.9	101.9	101.9	95.5	95.5	95.5	97.3	99.5	99.5	99.5	99.5	99.5
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Combined	101.8	101.8	101.6	100.4	100.1	100.1	102.1	103.1	103.3	104.1	103.2	102.7

1915

Food	103.2	101.1	98.5	99.4	100.6	100.3	100.7	99.7	101.0	102.7	104.2	103.0
Clothing	105.8	106.8	106.8	106.8	106.8	106.8	106.8	106.8	107.5	108.8	108.8	108.8
Shelter	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1
Fuel and light	101.1	101.1	101.1	94.2	94.2	94.2	96.4	98.5	98.5	98.5	98.5	98.5
Sundries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.5	101.0	101.3	101.5
Combined	102.9	102.1	101.0	101.0	101.5	101.4	101.7	101.4	102.2	103.2	103.9	103.5

Table 6.—Cost of Living Index Numbers by Elements—Continued

1916

ELEMENTS	January	February	March	April	May	June	July	August	September	October	November	December
Food	105.5	106.5	107.2	108.8	110.0	113.3	112.4	112.1	116.0	117.3	122.2	124.7
Clothing	114.5	115.4	121.2	121.2	121.2	121.2	121.2	121.2	121.6	125.2	125.2	125.2
Shelter	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3	105.3
Fuel and light	101.3	101.3	101.3	101.3	101.3	101.3	101.3	101.3	102.9	106.9	113.3	113.3
Sundries	102.0	102.3	102.5	103.0	103.3	103.5	104.0	105.0	106.0	107.0	108.0	109.0
Combined	105.7	106.3	106.7	108.2	108.7	110.3	109.9	110.1	112.1	113.6	116.2	117.5

1917

ELEMENTS	January	February	March	April	May	June	July	August	September	October	November	December
Food	126.2	129.1	132.0	137.5	142.1	147.5	142.9	143.6	149.3	153.1	153.8	156.7
Clothing	137.7	137.7	138.9	138.9	145.0	145.0	145.0	145.0	145.6	159.9	159.9	159.9
Shelter	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1
Fuel and light	113.2	113.2	113.2	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7
Sundries	110.0	110.0	112.0	113.0	114.0	116.0	117.0	119.0	122.0	124.0	128.0	130.0
Combined	119.6	121.1	122.7	125.3	127.5	131.0	129.3	130.0	133.1	137.1	138.2	139.6

1918

ELEMENTS	January	February	March	April	May	June	July	August	September	October	November	December
Food	155.8	159.3	154.4	150.9	155.9	162.6	165.2	170.5	178.3	179.0	180.3	183.1
Clothing	176.5	180.4	180.6	193.6	193.6	201.3	201.3	201.3	202.4	209.4	209.4	209.4
Shelter	111.7	111.7	111.7	108.2	108.2	108.2	108.2	108.2	116.4	116.4	116.4	116.4
Fuel and light	125.3	125.3	125.3	125.3	125.3	125.7	132.1	132.1	132.1	132.6	133.8	143.8
Sundries	134.0	136.0	140.0	143.0	146.0	150.0	151.0	152.0	153.0	154.0	155.0	155.0
Combined	144.6	147.0	145.7	145.0	148.7	152.4	155.1	157.6	161.3	164.2	165.0	166.1

1919

Food	180.1	174.2	174.1	176.6	179.7	181.0	182.2	187.4	182.0	184.7	188.9	189.1
Clothing	221.5	223.5	223.8	235.3	235.8	235.8	235.8	237.2	240.9	256.3	271.6	272.3
Shelter	118.4	118.4	118.4	115.5	115.5	115.5	115.5	115.5	115.5	129.6	129.6	129.6
Fuel and light	143.1	135.1	135.1	135.7	140.0	144.3	145.8	150.1	150.1	150.7	152.9	153.5
Sundries	155.0	155.0	155.0	156.0	160.0	163.0	163.0	167.0	172.0	175.0	175.0	175.0
Combined	167.5	164.7	164.7	167.0	169.1	170.3	171.5	174.6	173.1	179.9	184.5	184.7

1920

Food	200.9	195.5	198.9	198.2	207.9	207.9	216.9	205.1	202.5	194.7	187.2	179.6
Clothing	286.2	291.3	299.8	305.5	302.0	288.4	280.9	282.9	285.9	268.9	258.3	226.0
Shelter	131.0	131.0	131.0	133.8	134.9	139.4	139.4	142.4	147.8	147.8	150.6	151.7
Fuel and light	154.2	160.7	161.6	170.8	171.1	171.7	172.1	175.0	188.5	189.2	190.0	189.9
Sundries	175.9	175.9	175.9	183.0	183.0	185.0	185.0	185.0	188.0	190.0	192.0	192.0
Combined	192.0	190.8	193.4	196.3	200.3	199.7	202.6	198.5	200.1	194.9	191.3	183.9

1921

Food	171.5	158.6	145.1	142.1	135.3	133.5	139.5	142.0	139.9	138.7	137.2	139.4
Clothing	219.9	214.4	208.2	206.5	201.6	197.1	191.8	187.1	186.7	186.2	187.6	186.1
Shelter	151.7	151.7	153.2	156.3	159.4	159.4	159.4	159.4	161.0	161.0	161.0	161.0
Fuel and light	188.3	187.5	177.4	176.8	176.1	175.9	175.9	175.4	180.9	180.9	180.0	180.5
Sundries	192.0	190.0	190.0	188.0	188.0	185.0	183.0	183.0	180.0	180.0	180.0	178.0
Combined	179.5	172.9	166.4	164.5	161.4	159.4	160.8	161.4	160.0	159.7	159.2	159.6

1922

Food	136.1	135.6	133.1	135.4	134.0	134.1	137.2	136.3	136.3	138.2	139.9	139.8
Clothing	180.1	179.2	176.9	176.1	176.5	176.1	174.9	177.6	178.4	179.1	179.4	162.5
Shelter	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.0	162.0	162.0	162.5	162.5
Fuel and light	174.9	174.9	173.7	172.8	172.8	172.7	172.7	172.0	172.9	182.6	184.5	184.8
Sundries	178.0	177.0	177.0	174.0	174.0	174.0	174.0	172.0	169.7	169.7	169.7	168.8
Combined	157.3	156.8	155.3	155.6	154.9	155.0	156.2	155.3	155.4	156.6	157.7	157.5

Table 6.—Cost of Living Index Numbers by Elements—Continued

1923

ELEMENTS	January	February	March	April	May	June	July	August	September	October	November	December
Food	139.3	141.3	138.8	139.3	141.0	143.4	142.0	143.5	144.9	142.0	144.1	144.1
Clothing	178.0	182.2	182.8	184.0	183.2	184.1	182.1	182.3	183.4	185.9	187.0	186.1
Shelter	162.5	162.5	164.5	166.0	166.5	167.0	167.0	167.0	167.5	167.5	167.5	167.5
Fuel and light	184.8	184.2	178.2	178.6	177.5	177.4	178.2	177.0	177.7	181.6	182.1	181.7
Sundries	168.8	168.8	168.8	170.5	170.5	170.5	170.5	170.5	170.5	170.5	170.5	170.5
Combined	157.1	158.5	157.5	158.5	159.1	158.9	160.1	159.5	160.3	161.6	160.6	161.3

1924

Food	141.0	139.9	139.0	136.1	136.4	137.1	137.5	138.5	142.4	142.1	141.5	143.0
Clothing	186.8	187.4	186.0	184.9	183.3	181.6	181.4	178.8	180.6	182.1	178.4	181.2
Shelter	168.0	168.0	168.0	168.0	168.0	168.0	168.0	172.0	172.0	172.0	172.0	172.0
Fuel and light	178.4	178.6	178.8	177.1	177.0	177.2	177.5	177.4	179.6	179.3	179.5	179.5
Sundries	171.4	171.4	171.4	171.4	171.4	171.4	171.4	170.5	170.5	170.5	170.5	172.2
Combined	160.1	159.7	159.2	157.7	157.6	157.7	157.8	158.4	160.5	160.3	159.8	161.2

1925

Food	144.7	142.8	143.4	143.7	146.8	147.9	150.3	153.1	154.1	155.6	155.6	155.6
Clothing	177.9	177.6	181.2	180.8	182.3	182.1	180.7	181.1	182.5	182.1	182.1	186.6
Shelter	172.0	172.0	172.0	172.0	172.0	172.0	172.0	172.0	170.0	170.0	170.0	170.0
Fuel and light	179.9	180.0	175.6	175.7	176.6	178.5	181.2	181.2	186.4	186.4	186.4	197.4
Sundries	172.2	172.2	172.2	172.2	172.2	172.2	172.2	171.4	171.4	171.4	171.4	172.2
Combined	161.5	160.6	161.6	161.1	161.2	162.8	163.4	164.4	163.9	165.1	165.9	168.0

1926

Food	151.8	153.9	149.2	151.9	148.0	148.3	147.7	145.4	146.8	147.3	147.4	147.9
Clothing	184.5	181.7	182.3	179.2	180.3	181.2	178.5	178.7	177.0	177.7	177.5	177.5
Shelter	170.0	170.7	170.0	170.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0	168.0
Fuel and light	214.6	198.0	183.3	181.4	181.9	182.0	183.3	184.4	185.2	185.7	185.5	185.7
Sundries	172.2	172.2	172.2	172.2	170.5	170.5	169.7	169.7	170.5	171.4	171.4	171.4
Combined	167.0	166.6	163.9	164.5	162.3	162.5	161.9	160.9	161.3	161.8	162.1	162.3

1927

Food	145.9	143.7	142.1	143.4	145.7	145.5	142.8	142.2	142.6	142.1	144.6	145.0
Clothing	176.1	176.3	175.1	175.0	173.9	173.3	170.2	171.6	172.5	172.1	172.8	172.8
Shelter	168.0	168.0	166.0	166.0	166.0	166.0	166.0	165.0	165.0	165.0	165.0	165.0
Fuel and light	185.4	185.3	184.6	181.6	178.5	178.4	179.0	179.3	181.5	181.5	181.4	181.4
Sundries	171.4	171.4	171.4	170.5	170.5	170.5	170.5	170.5	169.7	169.7	170.5	170.5
Combined	161.2	160.3	159.0	159.2	159.9	159.7	158.6	158.0	158.2	158.0	159.3	159.5

1928

Food	145.4	144.2	142.2	144.6	146.1	144.6	148.6	149.3	152.7	150.0	149.0	147.6
Clothing	172.6	172.7	172.6	171.7	173.8	172.1	172.5	170.9	171.5	169.3	171.5	172.8
Shelter	165.0	165.0	165.0	165.0	165.0	165.0	165.0	163.0	163.0	163.0	163.0	163.0
Fuel and light	181.4	181.4	181.2	175.4	175.4	175.4	175.4	175.5	177.9	177.9	179.7	179.6
Sundries	170.5	169.7	169.7	168.8	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
Combined	159.6	158.9	158.0	158.4	159.6	158.7	160.5	160.3	161.9	160.5	160.5	160.5

1929

Food	148.5	146.5	147.6	147.7	149.1	148.1	151.8	154.7	153.0	152.1	149.3	148.9
Clothing	173.3	170.1	174.1	173.6	173.6	173.6	172.2	173.6	173.2	173.5	173.6	174.0
Shelter	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0	163.0
Fuel and light	179.5	179.6	179.7	177.9	177.9	174.2	176.4	176.3	178.9	179.0	179.1	179.3
Sundries	170.0	169.2	169.2	168.9	168.9	167.9	167.7	167.7	168.4	168.4	169.2	169.2
Combined	160.5	159.0	160.0	159.8	160.2	159.6	161.1	162.5	161.9	161.7	160.7	160.6

Table 6.—Cost of Living Index Numbers by Elements—Continued

1930

ELEMENTS	January	February	March	April	May	June	July	August	September	October	November	December
Food	146.4	145.8	141.9	142.1	141.7	139.3	137.6	136.6	137.2	137.0	132.9	130.8
Clothing	173.6	173.5	173.3	173.1	173.0	161.0	172.4	172.7	171.6	168.8	165.5	164.0
Shelter	163.0	163.0	163.0	163.0	163.0	161.0	161.0	161.0	161.0	161.0	161.0	160.5
Fuel and light	179.4	179.4	178.3	178.1	170.7	170.7	162.1	174.3	175.0	175.8	175.4	175.5
Sundries	169.2	168.1	167.2	167.0	166.9	166.5	165.7	165.7	165.3	165.6	165.6	165.0
Combined	159.4	158.9	157.0	157.1	156.4	155.0	154.2	153.7	153.9	153.4	151.2	149.9

1931

ELEMENTS	January	February	March	April	May	June	July	August	September	October	November	December
Food	128.5	121.3	120.9	118.9	115.9	115.0	115.7	117.0	117.4	115.1	111.5	107.8
Clothing	162.4	157.4	156.6	154.5	151.0	149.2	149.1	148.6	148.4	148.0	145.8	145.0
Shelter	160.5	156.0	156.0	156.0	155.0	155.0	155.0	153.0	153.0	151.0	151.0	151.0
Fuel and light	175.5	175.4	175.8	166.0	163.1	163.1	164.9	165.5	167.5	168.3	168.7	168.1
Sundries	164.2	163.8	162.2	161.3	158.8	157.5	157.5	157.0	157.0	156.6	156.0	154.6
Combined	148.6	143.9	143.3	141.5	141.1	140.2	140.5	140.4	140.7	139.3	137.5	135.7

1932

ELEMENTS	January	February	March	April	May	June	July	August	September	October	November	December
Food	105.6	102.2	100.3	98.6	96.2	93.0	98.8	99.3	99.2	97.4	95.8	94.9
Clothing	138.8	135.9	135.2	132.2	128.8	124.7	125.4	123.9	122.0	123.9	120.4	121.7
Shelter	151.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	135.0	135.0	135.0	135.0
Fuel and light	168.0	164.0	164.0	155.8	154.2	153.5	154.9	154.9	158.9	159.0	157.3	156.8
Sundries	154.6	152.9	152.9	152.9	151.2	151.2	152.9	152.9	152.9	152.9	150.1	150.1
Combined	134.0	131.6	130.8	129.3	127.5	125.8	128.5	128.5	125.2	124.7	122.7	122.8

1933

Food		91.6	87.9	86.5	86.6	86.6	89.7	92.1	100.0	102.1	103.8	104.2	103.2
Clothing	:	121.2	121.5	119.1	120.7	121.7	124.6	126.6	130.8	135.7	140.4	142.6	143.4
Shelter	:	135.0	135.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	135.0	135.0	135.0
Fuel and light	:	157.1	157.0	156.9	156.2	150.4	148.8	150.1	151.1	154.6	155.3	155.4	155.1
Sundries	:	148.8	148.8	148.8	148.8	148.8	148.8	149.0	149.4	150.4	151.1	151.1	151.1
Combined	.	121.2	119.8	118.5	118.9	119.7	121.0	121.0	124.3	125.7	127.4	128.8	128.2

1934

Food		100.2	103.9	105.4	105.2	106.7	107.0	110.1	112.1	114.1	113.8	112.6	110.9
Clothing	:	145.2	145.9	148.0	146.4	147.2	147.7	146.5	145.9	147.8	149.0	149.9	148.9
Shelter	:	138.0	138.0	138.0	138.0	138.0	138.0	138.0	138.0	139.0	139.0	139.0	139.0
Fuel and light	:	155.1	155.8	155.0	154.5	150.3	150.8	152.2	153.7	156.6	156.9	156.4	156.7
Sundries	:	152.2	152.2	152.2	152.2	153.9	153.9	153.9	153.6	153.6	153.6	153.6	153.5
Combined	.	128.8	130.3	131.1	130.8	131.6	131.9	132.9	133.6	135.0	135.0	134.7	133.9

APPENDIX II

FUEL STATISTICS

Table 1.— Anthracite Coal—Total Production, New England Receipts, Imports

			(Net Tons)	United States Production	New England Receipts	New England Imports
1925	.	.	.	63,839,000	8,280,000	224,023
1926	.	.	.	85,454,000	10,612,000	387,458
1927	.	.	.	80,647,000	9,146,000	106,157
1928	.	.	.	76,746,000	9,376,000	369,036
1929	.	.	.	76,888,000	9,040,000	483,979
1930	.	.	.	69,732,000	8,390,000	657,987
1931	.	.	.	59,667,000	7,062,000	610,648
1932	.	.	.	49,855,000	5,639,000	567,397
1933	.	.	.	49,541,000	5,252,000	430,597
1934	.	.	.	57,385,000	5,972,000	477,263

Table 2.— Bituminous Coal—Total Production, New England Receipts, Imports

			(Net Tons)	United States Production	New England Receipts	New England Imports
1925	.	.	.	520,053,000	21,313,000	35,813
1926	.	.	.	578,290,000	21,087,000	62,364
1927	.	.	.	520,684,000	22,426,000	53,096
1928	.	.	.	493,252,000	19,652,000	76,889
1929	.	.	.	526,361,000	21,311,000	50,114
1930	.	.	.	461,879,000	19,901,000	32,385
1931	.	.	.	378,241,000	17,976,000	66,728
1932	.	.	.	309,710,000	15,022,000	53,589
1933	.	.	.	333,631,000	15,984,000	103,732
1934	.	.	.	357,500,000	17,006,000	35,465

Table 3.— New England All-Rail Movement of Coal as shown by Number of Cars of Coal passing East through the Gateways

(Daily Average)

YEARS	ANTHRACITE				COMMERCIAL BITUMINOUS			
	Boston & Maine	Boston & Albany	New York, New Haven & Hartford	Total	Boston & Maine	Boston & Albany	New York, New Haven & Hartford	Total
1925	126	46	167	339	77	61	135	273
1926	168	57	234	459	78	68	148	294
1927	140	50	210	400	74	62	135	271
1928	137	47	245	429	68	49	108	225
1929	134	43	222	399	74	60	121	255
1930	101	47	202	350	62	51	110	223
1931	75	32	177	284	49	40	102	191
1932	77	23	142	242	47	32	84	163
1933	68	21	133	222	51	34	85	170
1934	86	25	157	268	61	35	95	191

Table 4.— Deliveries of Domestic-sized Anthracite for Last Eight Coal Years—The Commonwealth of Massachusetts

(COAL YEAR, APRIL 1 TO MARCH 31)

		Net Tons
1926-1927	.	5,087,360
1927-1928	.	4,744,324
1928-1929	.	4,912,810
1929-1930	.	4,703,019
1930-1931	.	4,177,238
1931-1932	.	3,565,768
1932-1933	.	2,968,429
1933-1934	.	2,938,197
1934-1935 (8 months)	.	1,469,254

Population of Massachusetts, 1930 (United States Census), 4,249,614.

Table 5.—Freight Tariffs per Gross Ton and Average Retail Price per Net Ton Delivered on Domestic-sized Anthracite for Certain Representative Municipalities of Massachusetts

CITY OR TOWN	Delaware & Hudson and Philadelphia & Reading Freight Tariffs	Average Retail Prices December 1, 1933	
		Stove	Pea
Adams	\$3.50	\$14.25	\$12.50
Brockton	4.00	14.60	12.50
Fall River	3.55	14.50	11.50
Fitchburg	4.00	15.00	13.00
Framingham	4.00	14.50	12.50
Gloucester	4.00	14.25	12.50
Greenfield	3.88	14.50	12.25
Haverhill	4.00	13.00	11.50
Holyoke	3.88	14.25	12.00
Lawrence	4.00	14.75	12.25
Leominster	4.00	15.00	13.00
Lowell	4.00	15.00	13.00
Lynn	3.65	14.00	12.00
New Bedford	3.55	13.50	11.25
Newburyport	3.75	14.00	11.50
North Adams	3.50	14.25	12.50
Northampton	3.88	14.25	12.00
Norwood	4.00	14.45	12.35
Peabody	3.65	14.00	12.25
Pittsfield	3.50	14.00	11.75
Salem	3.65	14.00	12.25
Springfield	3.75-3.88	14.25	12.50
Taunton	3.75	14.50	12.00
Westfield	3.75	14.25	12.50
Woburn	3.80	14.10	12.00
Worcester	4.00	14.50	12.75
Boston	3.65-3.80	12.50-14.10	11.00-12.00
Suburbs	3.65-3.80	12.50-14.10	11.00-12.50

Freight tariffs from mines to tidewater:

To Port Richmond (Philadelphia) for transshipment to Boston, \$2.09. Barge rate, about \$1.00.

To Port Reading, N. J. (New York City Harbor) for transshipment to Boston, \$2.34. Barge rate, about 75c.

Table 6.—Population, Number of Dealers and their Deliveries of Domestic-sized Anthracite for Certain Representative Municipalities of Massachusetts

CITY OR TOWN	Population (1930)	Number of Dealers	DELIVERIES		
			1933-1934 Coal Year	1934-1935 (8 mos. of Coal Year)	†1934-1935 (8 mos. of Coal Year) Foreign Anthracite
Boston District*	1,619,616	109	1,156,976	558,218	96,443
Adams	12,697	5	11,093	6,603	0
Brockton	63,797	12	25,375	13,906	2,729
Fall River	115,274	9	61,185	29,365	3,214
Fitchburg	40,692	8	20,998	12,907	715
Gloucester	24,204	4	26,150	11,198	1,369
Greenfield	15,500	5	18,158	8,775	175
Haverhill	48,710	13	40,552	19,964	3,717
Holyoke	56,537	6	41,520	22,345	0
Lawrence	85,068	28	55,239	32,550	7,762
Leominster	21,810	7	17,192	9,409	1,069
Lowell	100,234	19	46,601	27,393	3,389
Lynn	102,320	9	75,199	35,167	18,807
New Bedford	112,597	9	100,838	51,928	0
Newburyport	15,084	5	27,596	12,080	968
North Adams	21,621	9	21,405	9,752	0
Northampton	24,381	7	34,778	16,655	0
Norwood	15,049	4	12,658	6,181	1,135
Peabody	21,345	7	9,103	4,139	459
Pittsfield	49,677	11	60,824	31,894	0
Salem	43,353	12	46,363	25,108	1,833
Springfield	149,900	15	114,257	55,997	1,111
Taunton	37,355	5	27,596	14,036	571
Westfield	19,775	5	12,873	6,026	120
Woburn	19,434	7	10,018	4,299	169
Worcester	195,311	20	127,663	62,550	2,939
City of Boston	781,188	42	777,819	364,906	69,065
Cambridge	113,643	8	51,106	25,345	967
Chelsea	45,816	6	19,539	10,495	3,369
Everett	48,424	4	24,689	9,970	2,863
Malden	58,036	6	18,462	10,320	1,542
Medford	59,714	4	15,516	8,838	260
Newton	65,276	5	41,194	20,264	2,336
Quincy	71,983	5	21,815	11,039	1,076
Somerville	103,908	10	65,860	32,350	6,273
Watertown	34,913	4	19,486	11,588	1,136

* All of above included in Boston District figures together with Arlington, Belmont, Brookline, Melrose, Milton, Revere, Waltham and Winthrop.

†Foreign Anthracite deliveries included in other Anthracite deliveries.

REPORT OF THE DIVISION OF PUBLIC EMPLOYMENT OFFICES

(Affiliated with United States Employment Service)

EVERETT L. HANNA, *Acting Director*

INTRODUCTION

This report covers the operations, during the fiscal year ending November 30, 1934, of the Division of Public Employment Offices.

In addition to the general report, a statistical summary is included which contains, primarily, data covering the operations of the division during the calendar year 1934. Summary data for prior years are also presented for purposes of comparison, together with a chart which shows graphically the fluctuation from month to month in the total number of openings and placements reported by the division during the years 1924 to 1934, inclusive.

Mr. M. Joseph McCartin, who was Director of the division at the beginning of the fiscal year 1934, continued in that office until October 15, 1934, when he resigned to accept the position of Director of the New England Regional Labor Board. Mr. Everett L. Hanna, Superintendent of the Boston office, thereupon became Acting Director, and continued as such until the end of the fiscal year.

DEVELOPMENT AND EXPANSION

During 1934 there occurred the most rapid expansion in the facilities of the division since its establishment in 1906. Five new offices were opened, in Greenfield, Lowell, Lynn, New Bedford and Pittsfield. These five, together with the existing offices in Boston, Springfield and Worcester, provide eight conveniently located offices in most of the major economic centers of the Commonwealth. With the eventual establishment of offices in Brockton, Fall River, Fitchburg and Lawrence, the entire State will be effectually covered by public employment office facilities.

This expansion of facilities was made possible by a grant of funds from the federal government, under the provisions of the so-called Wagner-Peyser Act. This act of Congress, passed in 1933, provides for the establishment of a national employment service and for co-operation with the states in the promotion of such a system. It also provides for the granting of certain sums of money to those states which accept the provisions of this act and which fulfill certain minimum requirements as provided in the act. These funds are, in general, granted on a dollar-for-dollar basis, the federal government matching the state appropriation up to the pro rata limit of the federal appropriation for this purpose.

To meet the personnel requirements of this expansion, civil service examinations were held for junior and senior employment registrars on December 2, 1933, and for employment office superintendents on December 6, 1933.

In Lowell, Lynn, New Bedford and Pittsfield it was possible to secure quarters for these new offices in the Post Office buildings of the respective cities, due to the affiliation with the United States Employment Service. These quarters were particularly desirable because the buildings are for the most part new and centrally located; and, in addition, no expense for rent is necessary. In Greenfield, however, it was necessary to lease space in a private office building. These offices conform to the standards set up by the United States Employment Service regarding location, arrangement, and suitability of quarters.

The Springfield office was relocated during the year, the superintendent's office and the clerical and technical division occupying quarters in the new Post Office building, while the remaining divisions moved to leased quarters in a private building at 33 Lyman Street. The arrangements in the new locations are in accordance with the accepted standards of employment office layout and equipment.

STATE ADVISORY COUNCIL

The agreement of affiliation with the United States Employment Service provides for a State Advisory Council, which shall consist of representatives of

employers and employees in equal numbers, and the public. The entire Council is appointed by the Commissioner of Labor and Industries.

Its purpose is to advise in formulating policies of administration; to insure impartiality, neutrality, and freedom from political influence in the administration of the service; to assist in the development of standards for the operation of the service; to assist in maintaining the standards established by the United States Employment Service for the selection of the personnel of the State service; to discuss problems relating to the service; and to promote public understanding of the purposes, policies and practices of the service.

The members of the State Advisory Council are as follows:

Representatives of Employers

John S. Lawrence . . .	Boston . . .	Chairman, Mass. Division N. E. Council
Henry S. Dennison . . .	Framingham . . .	Pres., Dennison Manufacturing Company
Alfred W. Donovan . . .	Rockland . . .	Pres., E. T. Wright Shoe Company
Lincoln Filene . . .	Boston . . .	Chairman of Board, William Filene's Sons Company
F. H. Willard . . .	Worcester . . .	Pres., Graton & Knight Company

Representatives of Employees

Robert J. Watt . . .	Boston . . .	Sec.-Treas., Mass. State Branch of A. F. of L.
John F. Gatelee . . .	Boston . . .	Pres., Mass. State Branch of A. F. of L.
Ernest A. Johnson . . .	Boston . . .	Pres., Boston Building Trades Council
John R. Machado . . .	Fall River . . .	Pres., Fall River Central Labor Union
Charles F. Sweeney . . .	Fitchburg . . .	Sec.-Treas., Fitchburg Central Labor Union.

Representatives of the Public

Mrs. LaRue Brown . . .	Boston . . .	Trustee, Massachusetts Training School
Roy M. Cushman . . .	Boston . . .	Exec. Sec., Boston Council of Social Agencies
Leo M. Harlow . . .	Boston . . .	Past State Commander, American Legion — lawyer
Miss Amy Hewes . . .	So. Hadley . . .	Dept. of Economics and Sociology, Mt. Holyoke College
Dr. Stanley King . . .	Amherst . . .	Pres., Amherst College
Paul F. Perkins . . .	Boston . . .	Assoc. Counsel, N. Y., N. H. & H. R. R.
Mrs. Katherine Shattuck . . .	Worcester . . .	Exec. Sec., Industrial Dept., Y. W. C. A.
Robert O. Small . . .	Boston . . .	Deputy Commissioner, State Dept. of Education
Julian D. Steele . . .	Boston . . .	Director, Robert Gould Shaw House
Judge William M. Welch . . .	Northampton . . .	
Margaret Wiesman . . .	Boston . . .	Sec., Consumers' League of Massachusetts

Officers

Chairman: John S. Lawrence

Vice-Chairman: Robert J. Watt

Acting Secretary: Everett L. Hanna

There are three standing committees in the Council, the Executive Committee, the Committee on Veterans' Placement Service, and the Committee on Junior Placement and Handicapped.

The Executive Committee formulates general policies for decision at the meetings of the Council, and acts for the Council in its absence, subject to the approval of the general body.

The committee on Veterans' Placement Service concerns itself with giving advice regarding the proper functioning of the Veterans' Placement Service maintained in the Division of Public Employment Offices. Wholehearted interest on

the part of the committee is assured, since it is composed entirely of present or past state commanders of veterans' organizations.

The committee on Junior Placement and Handicapped gives advice regarding the establishment of proper facilities for junior placement work and also advises the Council in regard to the present activities and future plans of the Supervisor of Handicapped Placements.

The members of the three standing committees are as follows:

Executive Committee

John S. Lawrence, <i>Chairman</i>	Ernest A. Johnson
Robert J. Watt, <i>Vice-Chairman</i>	Miss Amy Hewes
Alfred W. Donovan	Miss Margaret Wiesman
Everett L. Hanna, <i>Acting Secretary</i>	

Veterans' Placement Service Committee

Leo M. Harlow, <i>Chairman</i> , former State Commander of American Legion
Daniel J. Doherty, State Commander, American Legion
Walter Howard, State Commander, Veterans of Foreign Wars
T. James Gallagher, State Commander, Disabled American Veterans of World War
William Quirk, State Commander, United Spanish War Veterans

Committee on Junior Placement and Handicapped

Miss Susan Ginn, <i>Chairman</i>	
Robert O. Small	Frederick J. Graham

The State Advisory Council and its various committees held several meetings during the fiscal year and offered much valuable advice for the carrying on of the functions of the division.

LOCAL ADVISORY COUNCILS

Local advisory councils are also provided for to discuss the particular problems affecting employment in the cities in which state employment offices are operated. These members are also appointed by the commissioner.

Up to November 30, 1934, the only office which had a local advisory council was that in Boston. As in the case of the State Advisory Council, the membership consists of representatives of employers and employees in equal numbers, together with representatives of the public.

The members of the Boston Advisory Council are as follows:

Representatives of Employers

David F. Edwards . . .	Boston . . .	Pres., Saco-Lowell Shops
Arthur Newhall . . .	Watertown	Pres., Hood Rubber Company

Representatives of Employees

Ernest Johnson . . .	Boston . . .	Pres., Boston Building Trades Council
J. Arthur Moriarty . . .	Boston . . .	Pres., Boston Central Labor Union

Representatives of the Public

Edward Dana . . .	Boston . . .	General Mgr., Boston Elevated Railway
Lincoln Filene . . .	Boston . . .	Chairman of Board, Wm. Filene's Sons Company
Walter H. Neaves . . .	Boston . . .	Exec. Vice-Pres., Federal Home Loan Bank

Officers

Chairman: Walter H. Neaves

This council met once during the year, in a joint meeting with the State Advisory Council, at which the members inspected and approved the new quarters of the Boston office in the Public Works building.

CIVIL WORKS ADMINISTRATION

The Civil Works Administration program inaugurated by the federal government in the latter part of November, 1933, continued until the spring of 1934. The Division of Public Employment Offices was designated to act as the registration and referral agency for all Civil Works projects in Boston, Springfield and Worcester.

As a result, the fiscal year ending November 30, 1934, was the busiest in the history of the division. During the one month of December, 1933, there were 34,995 applicants registered and classified by the division. During the same month 15,919 persons were placed, most of which were in openings on Civil Works projects.

A Civil Works project was set up to provide for temporary registrars and clerical assistance in all offices to care for the increased volume of business. These temporary workers were paid entirely from federal funds.

Although the greatest rush occurred in December, 1933, the work connected with this program continued at a diminishing rate on into the spring.

CIVIL WORKS STATISTICAL PROJECT

During the fall of 1933 the United States Employment service had developed a uniform statistical procedure for all offices throughout the country. In order to make the statistics compiled in this standardized way available from the beginning of the federal fiscal year on July 1, and in order to secure more accurate data on Civil Works employment than it was possible to compile during the rush in November and December of 1933, a nation-wide statistical project was established whereby a number of statistical clerks were employed during the late winter months to audit the statistics of the offices of the division from July to December, 1933, inclusive.

Mr. George R. Taminosian, principal statistical clerk of the division, was appointed project supervisor for Massachusetts at no increase in compensation and went to Washington at the expense of the federal government to learn the technical details of this project. Upon his return the authorized number of statistical clerks was employed and instructed in their duties, and the project was carried through to a successful conclusion.

SURVEYS OF MUNICIPAL EMPLOYMENT OFFICE FACILITIES

During the year the division made surveys of the facilities offered by the Municipal Employment Bureau of the City of Boston and the Employment Division of the Public Welfare Department of the City of Boston.

The first was made at the request of the Honorable Frederick W. Mansfield, Mayor of Boston, while the second was made at the request of Mr. John C. L. Dowling, Executive Director, Overseers of the Public Welfare in the City of Boston.

In both cases exhaustive surveys were made, covering the location and suitability of quarters, qualifications of personnel, office procedure, statistical records, and filing methods. A complete report was rendered in each case and many of the recommendations which were made were adopted.

STAFF CONFERENCES

Several staff conferences have been held during the year for the instruction of the staff and for the dissemination of new ideas concerning the operation of public employment offices. The speakers at these conferences have been divided more or less equally between outside speakers and staff members who were qualified to speak on some particular subject.

During the summer of 1934, a luncheon round-table conference of the entire personnel of the division was held at a country club near Boston, at which the principal speaker was Miss Mary LaDame, Associate Director of the United States Employment Service, whose subject was "The Federal Employment Service and Its Program."

During the afternoon a panel discussion was held on the subject, "Skills Necessary in Placement Work and How to Acquire Them." The chairman was Professor Ralph G. Wells, Director of the Bureau of Business Research of Boston University, while the speakers were:

Royal S. Parkinson, Manager Personnel Activities, American Optical Company.

Miss Susan Ginn, President, National Vocational Guidance Association and Director of Vocational Guidance, Boston Public Schools.

Walter H. Neaves, Executive Vice-President, Federal Home Loan Bank.

Roswell F. Phelps, Director, Division of Statistics, Dept. of Labor and Industries.

Dr. F. Lyman Wells, Boston Psychopathic Hospital.

Robert J. Watt, Sec.-Treas. Mass. Branch of A. F. of L.

Invitations were sent to the state employment services, if established, and to the National Reemployment Service in the other New England States. The directors of the National Reemployment Services of the majority of the New England States were present, in some cases with members of their staffs.

PLANS FOR THE FUTURE

Briefly the plans for the forthcoming fiscal year include the establishment of new offices in Brockton, Fall River, Fitchburg and Lawrence, and the appointment of local advisory councils for offices which do not have them at present. The present program of staff training conferences, uniform filing procedure, daily statistical reporting and systematic visits to employers will be continued.

STATISTICAL SUMMARY

The principal data relative to the activities of the Division of Public Employment Offices during the calendar year 1934, with corresponding data for 1933, are presented in Table 1. Inasmuch as there were five new offices opened during 1934, the totals for all offices in the division in 1934 are not comparable with the totals for 1933. In order to make a direct comparison of these two years, subtotals for the three offices which were in operation both years, namely, Boston, Springfield and Worcester, are also presented in Table 1.

Table 1.—Summary of Business of the Division of Public Employment Offices During the Years 1934 and 1933: By Offices

OFFICES	1934				1933			
	Applica-tions	Open-ings	Referrals	Place-ments	Applica-tions	Open-ings	Referrals	Place-ments
Boston								
All divisions	60,888	10,504	12,842	8,433	68,786	17,442	21,732	16,440
Springfield	11,278	5,951	6,586	5,615	11,842	6,657	7,416	6,189
Worcester	12,994	5,693	6,414	4,608	17,674	7,567	8,038	5,919
Sub totals	85,160	22,148	25,842	18,656	98,302	31,666	37,186	28,548
Greenfield ¹	815	400	621	347	—	—	—	—
Lowell ²	7,922	2,533	2,982	2,292	—	—	—	—
Lynn ³	7,767	1,951	3,104	1,435	—	—	—	—
New Bedford ³	4,177	1,220	1,608	1,074	—	—	—	—
Pittsfield ³	1,942	1,227	1,517	1,104	—	—	—	—
Totals	107,783	29,479	35,674	24,908	98,302	31,666	37,186	28,548

¹ Three months for Greenfield; opened October 1, 1934.

² Twelve months for Lowell; opened January 2, 1934.

³ Nine months for Lynn, New Bedford, and Pittsfield; statistics merged as of April 1, 1934.

Placements.—The total number of placements made during the calendar year 1934 amounted to 24,908 in all offices and 18,656 in the three original offices (Boston, Springfield, and Worcester). The total placements decreased by 3,640 or 12.75 per cent, as compared with the number of placements (28,548) made during 1933. The placements made by the three original offices decreased 9,892 or 34.65 per cent below the number (28,548) made during the preceding year. This apparent decrease was in reality the beginning of a return to approximately normal conditions following the abnormal situation in November and December, 1933, occasioned by the Civil Works Administration activity. In Boston there was a decrease of 48.70 per cent in the number of placements; in Springfield, 9.27 per cent; and in Worcester, 22.15 per cent.

Openings.—During the calendar year 1934, the total number of openings received by all offices was 29,479, which was a decrease of 2,187, or 6.91 per cent, from the number of openings (31,666) recorded in 1933. The total number of openings in Boston, Springfield and Worcester received in 1934 was 22,148, which was 9,518 or 30.06 per cent less than the number (31,666) received during the preceding year. As in the case of placements, this decrease was due to the diminution of Civil Works Administration activities after December, 1933. The decreases in the number of openings received by each of the three original offices were as follows: Boston, 39.78 per cent; Springfield, 10.61 per cent; and Worcester, 24.77 per cent. The 29,479 openings received during 1934 resulted in 24,908 placements. This represented 84.5 per cent of the total number of openings, as compared with 90.2 per cent in 1933 and 81.3 per cent in 1932. The lower percentage in 1934, as compared with 1933, was due to the fact that Civil Works Administration openings predominated in 1933, which openings were of necessity filled by the offices of the division receiving them.

Referrals.—The total number of persons referred to openings from all offices combined during the calendar year 1934 was 35,674, which was 1,512 or 4.07 per cent less than the number (37,186) referred in 1933. The total number of referrals from the offices in Boston, Springfield and Worcester was 25,842, a decrease of 11,344 or 30.51 per cent from the number (37,186) referred in 1933. The percentage decreases from the 1933 figures in the three original offices during 1934 were as follows: Boston, 40.91 per cent; Springfield, 11.19 per cent; and Worcester, 20.20 per cent. During 1934, the 35,674 referrals resulted in 24,908 placements, or an average of 1.4 persons sent out for each position filled by the division. In 1933 this ratio was 1.3, while in 1932 it was 1.6.

Summary by Sex.—Principal data for the calendar years 1934 and 1933 are presented by sex in Table 2 for each office separately and for all offices combined. Of the 24,908 placements made during 1934, in all offices combined, 18,914, or 75.9 per cent were of men. In the Boston office, 75.0 per cent of the placements were of men; in Greenfield, 63.1 per cent; in Lowell, 92.4 per cent; in Lynn, 81.1 per cent; in New Bedford, 90.4 per cent; in Pittsfield, 89.2 per cent; in Springfield, 72.8 per cent; and in Worcester, 66.1 per cent.

Table 2.—Summary of Business of the Division of Public Employment Offices During the Years 1934 and 1933: By Offices and Sex

OFFICE AND CLASSIFICATION	1934				1933			
	Applica-tions	Open-ings	Referrals	Place-ments	Applica-tions	Open-ings	Referrals	Place-ments
All offices combined:								
Males	79,549	21,202	24,974	18,914	74,398	24,313	28,279	22,901
Females	28,234	8,277	10,700	5,994	23,904	7,353	8,907	5,647
Totals	107,783	29,479	35,674	24,908	98,302	31,666	37,186	28,548
Boston:								
Males	44,724	7,630	8,977	6,324	51,919	13,581	16,937	12,988
Females	16,164	2,874	3,865	2,109	16,867	3,861	4,795	3,452
Totals	60,888	10,504	12,842	8,433	68,786	17,442	21,732	16,440
Greenfield: ¹								
Males	514	255	434	219	—	—	—	—
Females	301	145	187	128	—	—	—	—
Totals	815	400	621	347	—	—	—	—
Lowell: ²								
Males	6,196	2,300	2,620	2,117	—	—	—	—
Females	1,726	233	362	175	—	—	—	—
Totals	7,922	2,533	2,982	2,292	—	—	—	—
Lynn: ³								
Males	5,551	1,480	2,100	1,164	—	—	—	—
Females	2,216	471	1,004	271	—	—	—	—
Totals	7,767	1,951	3,104	1,435	—	—	—	—

¹ Three months for Greenfield; opened October 1, 1934.

² Twelve months for Lowell; opened January 2, 1934.

³ Nine months for Lynn, New Bedford, and Pittsfield; statistics merged as of April 1, 1934.

Table 2.—Summary of Business of the Division of Public Employment Offices During the Years 1934 and 1933: By Offices and Sex—Continued

OFFICE AND CLASSIFICATION	1934				1933			
	Applications	Openings	Referrals	Placements	Applications	Openings	Referrals	Placements
New Bedford: ¹								
Males . . .	3,370	1,045	1,335	971	—	—	—	—
Females . . .	807	175	273	103	—	—	—	—
<i>Totals</i> . . .	<i>4,177</i>	<i>1,220</i>	<i>1,608</i>	<i>1,074</i>	—	—	—	—
Pittsfield: ¹								
Males . . .	1,426	1,021	1,219	985	—	—	—	—
Females . . .	516	206	298	119	—	—	—	—
<i>Totals</i> . . .	<i>1,942</i>	<i>1,227</i>	<i>1,517</i>	<i>1,104</i>	—	—	—	—
Springfield:								
Males . . .	8,187	4,138	4,364	4,090	9,159	5,528	5,851	5,416
Females . . .	3,091	1,813	2,222	1,525	2,683	1,129	1,565	773
<i>Totals</i> . . .	<i>11,278</i>	<i>5,951</i>	<i>6,586</i>	<i>5,615</i>	<i>11,842</i>	<i>6,657</i>	<i>7,416</i>	<i>6,189</i>
Worcester:								
Males . . .	9,581	3,333	3,925	3,044	13,320	5,204	5,491	4,497
Females . . .	3,413	2,360	2,489	1,564	4,354	2,363	2,547	1,422
<i>Totals</i> . . .	<i>12,994</i>	<i>5,693</i>	<i>6,414</i>	<i>4,608</i>	<i>17,674</i>	<i>7,567</i>	<i>8,038</i>	<i>5,919</i>

¹ Nine months for Lynn, New Bedford and Pittsfield; statistics merged, as of April 1, 1934.

Summary by Months.—In Table 3 are presented principal data for the years 1934 and 1933, by months, covering the activities of all offices combined and of each office separately. It is seen that for the division as a whole, January was the busiest month during 1934 as far as applications, openings, and referrals were concerned. This was due in large measure to the Civil Works Administration program, which continued over from 1933 into the early part of 1934.

Table 3.—Summary of Business of the Division of Public Employment Offices During the Years 1934 and 1933: By Offices and Months

OFFICE AND MONTH	1934				1933			
	Applications	Openings	Referrals	Placements	Applications	Openings	Referrals	Placements
ALL OFFICES COMBINED								
January ¹ . . .	22,675	3,683	4,303	1,568	2,536	981	1,242	762
February . . .	6,111	1,706	1,969	1,405	1,735	798	1,051	683
March . . .	9,647	2,015	2,253	1,540	2,831	859	1,112	639
April ² . . .	10,552	1,986	2,440	1,821	1,977	1,050	1,298	904
May . . .	14,176	2,224	2,734	3,954	2,738	1,671	2,008	1,359
June . . .	13,392	2,647	3,411	2,133	3,213	1,632	1,843	1,361
July . . .	5,815	2,585	3,320	2,061	2,653	987	1,177	765
August . . .	4,793	2,543	2,964	2,009	2,931	1,274	1,526	1,002
September . . .	4,236	2,101	2,602	1,620	3,541	1,576	1,913	1,296
October ³ . . .	8,047	3,145	3,726	2,401	8,913	1,848	2,285	1,572
November . . .	5,143	2,604	3,191	2,291	30,239	2,753	3,088	2,286
December . . .	3,196	2,240	2,761	2,105	34,995	16,237	18,643	15,919
<i>Totals</i> . . .	<i>107,783</i>	<i>29,479</i>	<i>35,674</i>	<i>24,908</i>	<i>98,302</i>	<i>31,666</i>	<i>37,186</i>	<i>28,548</i>
BOSTON: All Divisions								
January . . .	16,560	2,319	2,848	349	1,647	514	707	388
February . . .	4,224	459	671	398	1,223	376	547	316
March . . .	6,066	855	968	330	1,708	340	499	258
April . . .	4,372	774	988	902	1,199	423	601	357
May . . .	5,494	732	869	2,743	1,850	784	1,014	614
June . . .	9,232	486	706	317	2,055	618	777	533
July . . .	2,584	552	711	315	1,370	398	498	302
August . . .	2,191	718	843	407	1,738	477	652	406
September . . .	2,036	765	892	498	2,213	570	783	491
October . . .	4,089	1,239	1,510	841	7,244	678	1,029	602
November . . .	2,550	1,030	1,227	866	21,483	1,203	1,251	1,144
December . . .	1,490	575	609	467	25,056	11,061	13,374	11,029
<i>Totals</i> . . .	<i>60,888</i>	<i>10,504</i>	<i>12,842</i>	<i>8,433</i>	<i>68,786</i>	<i>17,442</i>	<i>21,732</i>	<i>16,440</i>

¹ Lowell office opened January 2, 1934.

² Statistics of Lynn, New Bedford and Pittsfield offices merged as of April 1, 1934.

³ Greenfield office opened October 1, 1934.

Table 3.—Summary of Business of the Division of Public Employment Offices During the Years 1934 and 1933: By Offices and Months—Continued

OFFICE AND MONTH	1934				1933			
	Applications	Openings	Referrals	Placements	Applications	Openings	Referrals	Placements
Greenfield: ¹								
October	383	143	266	122	—	—	—	—
November	249	116	199	101	—	—	—	—
December	183	141	156	124	—	—	—	—
Totals	815	400	621	347	—	—	—	—
Lowell: ²								
January	1,295	104	104	58	—	—	—	—
February	290	91	96	86	—	—	—	—
March	682	80	90	72	—	—	—	—
April	733	57	85	43	—	—	—	—
May	1,965	102	122	82	—	—	—	—
June	430	526	675	474	—	—	—	—
July	484	429	477	400	—	—	—	—
August	389	212	238	191	—	—	—	—
September	373	184	187	131	—	—	—	—
October	634	246	279	256	—	—	—	—
November	362	199	217	188	—	—	—	—
December	285	303	412	311	—	—	—	—
Totals	7,922	2,533	2,982	2,292	—	—	—	—
Lynn: ³								
April	2,056	129	159	72	—	—	—	—
May	1,053	174	225	89	—	—	—	—
June	1,215	152	290	145	—	—	—	—
July	706	298	471	228	—	—	—	—
August	623	188	336	91	—	—	—	—
September	608	111	266	71	—	—	—	—
October	691	223	357	164	—	—	—	—
November	510	153	291	114	—	—	—	—
December	305	523	709	461	—	—	—	—
Totals	7,767	1,951	3,104	1,435	—	—	—	—
New Bedford: ³								
April	232	61	89	35	—	—	—	—
May	1,187	34	58	13	—	—	—	—
June	419	38	53	37	—	—	—	—
July	650	220	327	224	—	—	—	—
August	458	286	352	282	—	—	—	—
September	199	55	85	46	—	—	—	—
October	497	148	186	96	—	—	—	—
November	329	270	278	254	—	—	—	—
December	206	108	180	87	—	—	—	—
Totals	4,177	1,220	1,608	1,074	—	—	—	—
Pittsfield: ³								
April	611	34	34	34	—	—	—	—
May	205	60	125	89	—	—	—	—
June	248	176	278	147	—	—	—	—
July	184	172	218	159	—	—	—	—
August	165	260	264	193	—	—	—	—
September	97	210	226	194	—	—	—	—
October	175	142	149	136	—	—	—	—
November	126	104	134	89	—	—	—	—
December	131	69	89	63	—	—	—	—
Totals	1,942	1,227	1,517	1,104	—	—	—	—
Springfield:								
January	2,459	704	746	650	583	238	270	207
February	967	602	638	451	265	214	255	193
March	1,730	368	406	413	265	214	270	171
April	1,061	380	464	328	414	342	374	313
May	912	632	695	615	465	462	518	422
June	1,126	601	709	582	548	540	566	497
July	538	599	611	512	368	235	278	212
August	448	411	496	449	541	401	458	346
September	486	459	552	414	725	522	641	490
October	751	550	540	522	770	739	776	675
November	510	410	462	296	1,740	428	568	484
December	290	235	267	383	5,158	2,322	2,442	2,179
Totals	11,278	5,951	6,586	5,615	11,842	6,657	7,416	6,189

¹ Greenfield office opened October 1, 1934.² Lowell office opened January 2, 1934.³ Statistics of Lynn, New Bedford and Pittsfield offices merged as of April 1, 1934.

Table 3.—Summary of Business of the Division of Public Employment Offices During the Years 1934 and 1933: By Offices and Months—Continued

OFFICE AND MONTH	1934				1933			
	Applications	Openings	Referrals	Placements	Applications	Openings	Referrals	Placements
Worcester:								
January . . .	2,361	556	605	511	306	229	265	167
February . . .	630	554	564	470	247	208	249	174
March . . .	1,169	712	789	725	858	305	343	210
April . . .	1,487	551	621	407	364	285	323	234
May . . .	3,360	490	640	323	423	425	476	323
June . . .	722	668	700	431	610	474	500	331
July . . .	669	315	505	223	915	354	401	251
August . . .	519	468	435	396	652	396	416	250
September . . .	437	317	394	266	603	484	489	315
October . . .	827	454	439	264	899	431	480	295
November . . .	507	322	383	383	7,016	1,122	1,269	658
December . . .	306	286	339	209	4,781	2,854	2,827	2,711
Totals . . .	12,994	5,693	6,414	4,608	17,674	7,567	8,038	5,919

The abnormal number of placements reported in May, 1934, was due to the lag in verification of Civil Works placements made earlier in the year. Applications, openings, and referrals are recorded as of the date the transactions occur, while placements are recorded as of the date the verification of employment is received by the offices. Thus in ordinary cases, persons who are placed by the offices and who go to work during the last few days of any month are often recorded as being placed during the succeeding month. During the rush attending the Civil Works program, the offices devoted the great bulk of their time to receiving applications and openings and making referrals, leaving the detailed verification of placements until some future time. This detailed verification was actually made later in a great many cases. However, at the close of the Civil Works Administration program in the spring, it was found that there were 1551 Civil Works openings which had of necessity been filled by the Boston office, but which had not been formally verified. Since there was no other agency which could have filled these openings, and since the openings had been filled, it followed that the Boston office must have made these placements. Consequently, these 1551 placements were credited to the Boston office in May, 1934, without formal verification in order to balance the records for the year. A study of the figures for openings and placements in the Boston office in January, 1934, will illustrate this situation. It is seen that during that month 2,319 openings were received, while only 349 placements were recorded, showing that the verification of placements was being left until some future time.

In analyzing the summary data for all offices combined, by months, it should be borne in mind that the number of offices increased from three to eight during the period covered by the table, thus making it impossible to compare directly the data for the division as a whole for any given month with the data for the corresponding month of the previous year. Should such an analysis be desired, it will be necessary to consider the offices in Boston, Springfield and Worcester, either separately or as a unit, and eliminate the five new offices from the analysis.

Classification of Placements by Industries.—In Table 4 are presented data showing the placements made by each office and by the division as a whole during 1934 and 1933, classified by general industrial groups. These industrial classifications are the same as those used in the report for 1933, except that "food, beverages, tobacco" as used in that report has been changed to "food, beverages" in the report for 1934, and placements in the tobacco products manufacturing industry have been included in "miscellaneous." Since only one placement in Springfield in 1933 was involved in this change, the effect of this adjustment on the figures is inconsequential. This change was made to make the classifications, as used here, conform more closely to those used by the United States Employment Service.

As may be seen in the table, "Building and Construction" accounted for a greater number of placements than any other group. This classification includes both private and public building, including projects undertaken by the Public Works Administration. Placements in this group amounted to 9,489 in all offices

Table 4.—Number of Placements Made by the Division of Public Employment Offices During the Years 1934 and 1935: By Industrial Groups and Offices

of the division, or 38.10 per cent of the total number of placements. This was followed by "Civil Works Administration" with 4,967, or 19.94 per cent of the total, and "Domestic and personal service" with 3,963, or 15.91 per cent of the total. Each of the other industrial groups shown in Table 4 accounted for less than ten per cent of the total number of placements.

Placements of Veterans.—During the year 1934, an unusual situation occurred in that more veterans were placed than registered for the first time during the year. This is brought out in Table 5, where it is seen that there were 3,818 registrations and 7,424 placements of veterans.

Table 5.—Number of Veterans Registered and Number of Veterans Placed by the Division of Public Employment Offices During the Years 1934 and 1933: By Offices

OFFICES	1934		1933	
	Registrations	Place-ments	Registrations	Place-ments
Boston (All divisions)	1,653	4,370	8,786	3,073
Greenfield ¹	44	38	—	—
Lowell ²	383	683	—	—
Lynn ³	275	286	—	—
New Bedford ³	254	498	—	—
Pittsfield ³	47	98	—	—
Springfield	530	842	1,214	1,236
Worcester	632	609	1,341	465
<i>Totals</i>	<i>3,818</i>	<i>7,424</i>	<i>11,341</i>	<i>4,774</i>

¹ Three months for Greenfield; opened October 1, 1934.

² Twelve months for Lowell; opened January 2, 1934.

³ Nine months for Lynn, New Bedford, and Pittsfield; statistics merged as of April 1, 1934.

There are two reasons for this situation. The first is that many veterans were registered and referred during November and December, 1933, during the first rush of Civil Works activity, but due to the lag in verifying these placements, they were not recorded as such until early in 1934. The method of recording placements is explained in detail in the discussion of Table 3, above.

The second reason is that since veterans were granted preference by law on both Civil Works projects during the winter and Public Works projects during the summer, it was quite possible that the same veteran applicant could have been placed more than once during the year, thus increasing the placement figures without changing the number of registrations recorded. This is possible since new applicants are counted as such only once, on their first visit to the office, whereas placements are recorded whenever openings are reported filled by the division. Thus the placement data may include duplications of individuals who were placed in more than one position during the year.

In the cases of Lowell, Lynn, New Bedford and Pittsfield, where the number of placements of veterans exceeds the number of registrations, although these offices were not a part of the division during 1933, it should be understood that the National Reemployment Service established offices in these cities during the latter part of 1933 and registered many applicants for Civil Works jobs, and that when the division established offices in these cities it took over the registration cards which were on file in these reemployment offices, thus giving it an extensive "stock in trade" at the very outset. In this way, placements could be made by the division of applicants who had registered prior to the establishment of a state employment office and whose original applications were not therefore included in the statistics of the division.

Referring to Table 5, it is seen that although the number of offices increased from three in 1933 to eight in 1934, the total number of veterans' applications declined from 11,341 to 3,818, a decrease of 7,523 or 66.33 per cent. On the other hand, placements rose from 4,774 to 7,424, an increase of 2,650 or 55.51 per cent. Of the 18,914 placements of men made during 1934 in all offices combined, 7,424 or 39.25 per cent were of veterans, as compared with 20.85 per cent in 1933.

APPENDIX

Table A : Number of Placements Made by the Division of Public Employment Offices: By Years, 1907 to 1934.

Table B : Number of Placements Made by the Division of Public Employment Offices: By Months, 1927 to 1934.

Table C : Number of Openings and Placements Reported by the Division of Public Employment Offices: By Months, 1925 to 1934.

Table A.—Number of Placements Made by the Division of Public Employment Offices: By Years, 1907-1934

YEAR	Boston ¹ Trades and Labor Office	Boston ⁶ Clerical and Technical Office	Boston Total	Fall River ³	Green- field ¹¹	Lowell ¹²	Lynn ¹³	New Bedford ¹⁴	Pitts- field ¹⁵	Spring- field ²	Worces- ter ⁴	Total all Offices
<i>Fiscal year ending November 30</i>												
1907	14,480 ¹	—	14,480	234 ³	—	—	—	—	—	796 ²	—	15,510 ⁶
1908	—	9,941	9,941	2,583	—	—	—	—	—	2,431	—	14,955
1909	—	13,034	13,034	1,541	—	—	—	—	—	3,166	—	17,741
1910	—	15,478	15,478	1,421	—	—	—	—	—	3,675	—	21,158
1911	—	15,806	15,806	1,042	—	—	—	—	—	4,310	—	21,158
1912	—	19,554	19,554	1,641	—	—	—	—	—	5,392	—	26,587
1913	—	20,971	20,971	1,269	—	—	—	—	—	6,325	—	29,117 ⁷
1914	—	15,724	15,724	1,125	—	—	—	—	—	4,695	—	24,710 ⁸
1915	—	14,491	14,491	942	—	—	—	—	—	6,106	—	26,689
1916	—	19,120	19,120	1,348	—	—	—	—	—	10,999	—	39,865
13 months ending December 31, 1917	18,747 ⁹	—	18,747 ⁹	383 ⁹	—	—	—	—	—	12,344 ⁹	—	41,155 ⁹
<i>Calendar year</i>												
1918	—	—	18,125	—	—	—	—	—	—	12,576	—	39,735
1919	—	16,885	16,885	—	—	—	—	—	—	12,287	—	37,615
1920	—	16,910	16,910	—	—	—	—	—	—	12,044	—	37,520
1921	—	11,734	11,734	—	—	—	—	—	—	9,689	—	28,556
1922	—	13,244	14,008	—	—	—	—	—	—	13,968	—	38,469
1923	—	14,882	14,882	1,782	—	—	—	—	—	13,677	—	40,044
1924	—	16,664	16,664	—	—	—	—	—	—	9,703	—	—
1925	—	14,037	13,037	1,529	—	—	—	—	—	10,306	—	32,188
1926	—	14,200	14,200	1,538	15,738	—	—	—	—	11,068	—	34,806
1927	—	14,933	14,933	1,494	16,327	—	—	—	—	10,252	—	34,294
1928	—	13,721	13,721	1,103	14,824	—	—	—	—	8,168	—	28,858
1929	—	13,052	13,052	1,656	14,708	—	—	—	—	8,185	—	28,324
1930	—	13,558	13,558	1,238	14,796	—	—	—	—	9,071	—	30,157
1931	—	8,760	8,760	758	9,558	—	—	—	—	6,290	—	19,430
1932	—	6,149	763	6,912	—	—	—	—	—	5,753	—	14,055
1933	—	4,373	638	5,011	—	—	—	—	—	4,092	—	14,055
1934	—	— ¹⁰	— ¹⁰	16,440	—	—	—	—	—	3,604	—	21,67
	—	—	—	8,433	—	—	—	—	—	6,189	—	28,548
	—	—	—	—	347 ¹¹	2,292 ¹²	1,435 ¹³	1,074 ¹⁴	1,104 ¹⁵	5,615	—	24,908 ¹⁶

¹ Boston (main office) opened December 3, 1906.
² Springfield office opened September 4, 1907.
³ Fall River office opened October 1, 1907; discontinued March 31, 1917.
⁴ Worcester office opened September 15, 1913.
⁵ Boston (clerical and technical office) opened January 9, 1922.
⁶ Two years for the Boston office, three months for the Springfield office, and two months for the Fall River office.
⁷ Eleven months for the Fall River office (closed during August) and two and one-half months for the Worcester office, opened September 15, 1907.

⁸ Eleven months for the Fall River office (closed during August).
⁹ Thirteen months for all offices except the Fall River office which was open for four months only, having been discontinued March 31, 1917.

¹⁰ Boston (main office) opened December 3, 1906.

¹¹ Fall River office opened October 1, 1907; discontinued March 31, 1917.

¹² Lowell office opened January 2, 1934.

¹³ Lynn office opened March 19, 1934, but statistics merged as of April 1, 1934 (see text).

¹⁴ New Bedford office opened April 17, 1934, but statistics merged as of April 1, 1934 (see text).

¹⁵ Pittsfield office opened February 19, 1934, but statistics merged as of April 1, 1934 (see text).

¹⁶ Three months for the Springfield office, nine months for the Lynn office, nine months for the New Bedford office, nine months for the Pittsfield office, and twelve months for all other offices.

Table B.—Number of Placements Made by the Division of Public Employment Offices: By Months, 1927 through 1934¹

(¹ See end of this table for 1934 figures for placements by Division of Public Employment Offices in Greenfield, Lowell, Lynn, New Bedford and Pittsfield.)

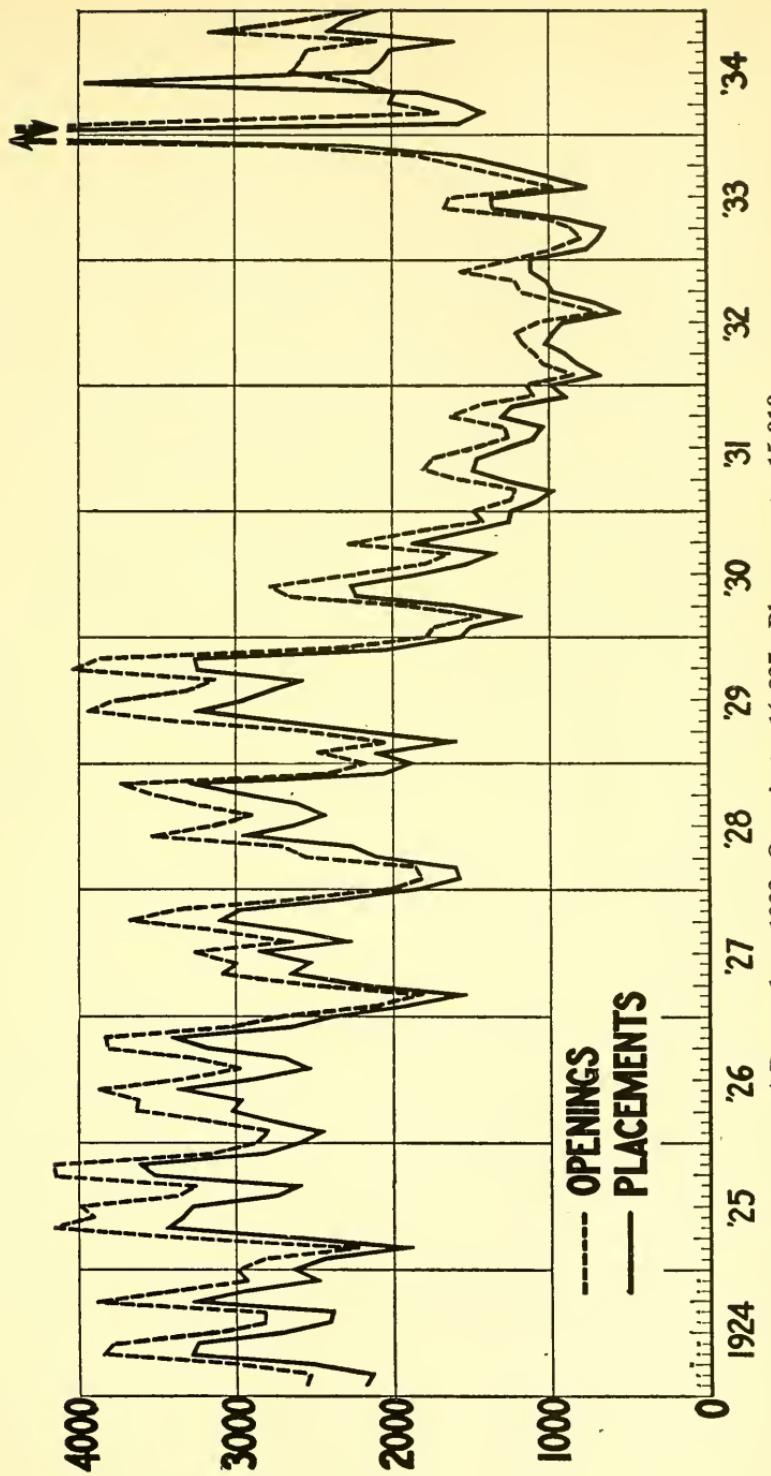
	1927	1928	1929	1930	1931	1932	1933	1934
<i>All Offices Combined</i>								
January	1,914	1,578	2,095	1,511	1,083	679	762	1,568
February	1,552	1,605	1,620	1,210	978	815	683	1,405
March	2,225	2,105	2,091	1,580	1,261	895	639	1,540
April	2,646	2,262	2,671	2,224	1,482	1,019	904	1,821
May	2,522	2,943	3,237	2,254	1,453	977	1,359	3,954
June	2,833	2,624	2,969	1,850	1,279	911	1,361	2,133
July	2,299	2,446	2,780	1,526	1,082	566	765	2,061
August	2,615	2,586	2,593	1,354	1,082	721	1,002	2,009
September	3,089	2,947	3,239	1,839	1,303	971	1,296	1,620
October	2,974	3,279	3,256	1,573	1,232	1,003	1,572	2,401
November	2,366	2,064	2,031	1,250	888	1,108	2,286	2,291
December	1,823	1,885	1,575	1,239	982	1,117	15,919	2,105
Totals	28,858	28,324	30,157	19,430	14,055	10,782	28,548	24,908
<i>Boston (All Divisions)</i>								
January	993	849	1,038	773	508	317	388	349
February	780	813	795	578	453	331	316	398
March	1,140	1,145	1,065	788	634	439	258	330
April	1,190	1,158	1,247	1,088	700	451	357	902
May	1,250	1,544	1,452	1,065	757	429	614	2,743
June	1,423	1,336	1,311	893	622	372	533	317
July	1,204	1,294	1,381	679	494	219	302	315
August	1,528	1,334	1,333	669	531	270	406	407
September	1,713	1,497	1,674	1,015	735	522	491	498
October	1,566	1,794	1,640	792	614	505	602	841
November	1,180	1,010	1,064	594	401	584	1,144	866
December	857	934	796	624	463	572	11,029	467
Totals	14,824	14,708	14,796	9,558	6,912	5,011	16,440	8,433
<i>Springfield</i>								
January	506	412	653	398	311	236	207	650
February	426	502	490	324	303	338	174	451
March	602	587	611	445	361	306	171	413
April	830	672	894	684	431	366	313	328
May	747	842	1,100	738	396	335	422	615
June	782	698	1,036	586	365	343	497	582
July	646	687	874	509	305	176	212	512
August	644	784	723	361	272	253	346	449
September	874	968	943	544	328	270	490	414
October	806	876	857	463	383	261	675	522
November	739	590	490	355	310	352	484	296
December	566	567	400	346	327	368	2,179	383
Totals	8,168	8,185	9,071	5,753	4,092	3,604	6,170	5,615
<i>Worcester</i>								
January	415	317	404	340	264	126	167	511
February	346	290	335	308	222	146	193	470
March	483	373	415	347	266	150	210	725
April	626	432	530	452	351	202	234	407
May	525	557	685	451	300	213	323	323
June	628	590	622	371	292	196	331	431
July	449	465	525	338	283	171	251	223
August	443	468	537	324	229	198	250	396
September	502	482	622	300	240	179	315	266
October	602	609	759	318	235	237	295	264
November	447	464	477	301	177	172	658	383
December	400	384	379	269	192	177	2,711	209
Totals	5,866	5,431	6,290	4,119	3,051	2,167	5,938	4,608
<i>YEAR</i>		<i>1934</i>	<i>1934</i>	<i>1934</i>	<i>1934</i>	<i>1934</i>	<i>1934</i>	
<i>MONTH</i>		<i>Greenfield</i>	<i>Lowell</i>	<i>Lynn</i>	<i>New Bedford</i>	<i>Pittsfield</i>		
January		—	58	—	—	—		
February		—	86	—	—	—		
March		—	72	—	—	—		
April		—	43	72	35	34		
May		—	82	89	13	89		
June		—	474	145	37	147		
July		—	400	228	224	159		
August		—	191	91	282	193		
September		—	131	71	46	194		
October		122	256	164	96	136		
November		101	188	114	254	89		
December		124	311	461	87	63		
Totals		347	2,292	1,435	1,074	1,104		

Table C.—Number of Openings and Placements Recorded by the Division of Public Employment Offices: By Months, 1925 through 1934

MONTH	1925		1926		1927		1928		1929	
	Open- ings	Place- ments								
January .	2,816	2,443	2,787	2,451	2,092	1,914	1,809	1,578	2,482	2,095
February .	2,223	1,898	3,133	2,762	1,813	1,552	1,852	1,605	2,052	1,620
March .	3,157	2,601	3,630	3,020	2,571	2,225	2,554	2,105	2,561	2,091
April .	4,161	3,430	3,605	2,963	3,090	2,646	2,702	2,262	3,404	2,671
May .	3,901	3,335	3,868	3,366	2,993	2,522	3,532	2,943	3,928	3,237
June .	3,995	3,263	3,332	2,901	3,251	2,833	3,106	2,624	3,772	2,969
July .	3,364	2,745	2,972	2,541	2,628	2,299	2,895	2,446	3,315	2,780
August .	3,238	2,590	3,261	2,691	3,094	2,615	3,232	2,586	3,137	2,593
September .	4,144	3,510	3,810	3,175	3,676	3,089	3,536	2,947	4,042	3,239
October .	4,159	3,598	3,823	3,395	3,368	2,974	3,726	3,279	3,871	3,256
November .	3,156	2,809	3,026	2,630	2,613	2,366	2,409	2,064	2,348	2,031
December .	2,879	2,584	2,692	2,399	2,009	1,823	2,174	1,885	1,783	1,575
<i>Totals .</i>	<i>41,193</i>	<i>34,806</i>	<i>39,939</i>	<i>34,294</i>	<i>33,198</i>	<i>28,858</i>	<i>33,527</i>	<i>28,324</i>	<i>36,695</i>	<i>30,157</i>

MONTH	1930		1931		1932		1933		1934	
	Open- ings	Place- ments	Open- ings	Place- ments	Open- ings	Place- ments	Open- ings	Place- ments	Open- ings	Place- ments
January .	1,737	1,511	1,245	1,083	838	679	981	762	3,683	1,568
February .	1,439	1,210	1,214	978	1,040	815	798	683	1,706	1,405
March .	1,908	1,580	1,574	1,261	1,095	895	859	639	2,015	1,540
April .	2,657	2,224	1,795	1,482	1,172	1,019	1,050	904	1,986	1,821
May .	2,787	2,254	1,741	1,453	1,212	977	1,671	1,359	2,224	3,954
June .	2,248	1,850	1,495	1,279	1,065	911	1,632	1,361	2,647	2,133
July .	1,775	1,526	1,260	1,082	692	566	987	765	2,585	2,061
August .	1,627	1,354	1,286	1,032	936	721	1,274	1,002	2,543	2,009
September .	2,265	1,859	1,625	1,303	1,180	971	1,576	1,296	2,101	1,620
October .	1,882	1,573	1,444	1,232	1,210	1,003	1,848	1,572	3,145	2,401
November .	1,425	1,250	1,098	888	1,569	1,108	2,753	2,286	2,604	2,291
December .	1,478	1,239	1,138	982	1,248	1,117	16,237	15,919	2,240	2,105
<i>Totals .</i>	<i>23,228</i>	<i>19,430</i>	<i>16,915</i>	<i>14,055</i>	<i>13,257</i>	<i>10,782</i>	<i>31,666</i>	<i>28,548</i>	<i>29,479</i>	<i>24,908</i>

OPENINGS FOR EMPLOYMENT AND PLACEMENTS
DIVISION OF PUBLIC EMPLOYMENT OFFICES
1924-1934



* December, 1933, Openings, 16,237; Placements, 15,919.

REPORT OF THE
DIVISION OF OCCUPATIONAL HYGIENE
MANFRED BOWDITCH, *Director*
CHAPTER 331, ACTS OF 1934

An Act Establishing a Division of Occupational Hygiene in the Department of Labor and Industries and Defining its Powers and Duties

SECTION 1. Section three of chapter twenty-three of the General Laws, as appearing in the Tercentenary Edition, is hereby amended by inserting after the word "life" in the seventh line the following: —, a division of occupational hygiene, — so as to read as follows: — *Section 3.* The commissioner shall be the executive and administrative head of the department. He shall have charge of the administration and enforcement of all laws, rules and regulations which it is the duty of the department to administer and enforce, and shall direct all inspections and investigations except as otherwise provided. He shall organize in the department a division of standards, a division on the necessities of life, a division of occupational hygiene and such other divisions as he may from time to time determine, and may assign the officers and employees of the department thereto. He shall prepare for the consideration of the assistant commissioner and the associate commissioners rules and regulations for the conduct of the department and all other rules and regulations which the department is authorized by law to make, and they shall, except as otherwise provided, take effect when approved by the associate commissioners and the assistant commissioner, or upon such date as they determine. The commissioner may designate the assistant commissioner or an associate commissioner to discharge the duties of the commissioner during his absence or disability.

SECTION 2. Section four of said chapter twenty-three, as so appearing, is hereby amended by striking out, in the third line, the word "six" and inserting in place thereof the word: — seven, — so as to read as follows: — *Section 4.* The commissioner, assistant commissioner and associate commissioners may, with the approval of the governor and council, appoint, and fix the salaries of, not more than seven directors, and may, with like approval, remove them. One of them, to be known as the director of standards, shall have charge of the division of standards, and one of them, to be known as the director of the division on the necessities of life, shall have charge of said division, and each of the others shall be assigned to take charge of a division. The commissioner may employ, for periods not exceeding ninety days, such experts as may be necessary to assist the department in the performance of any duty imposed upon it by law, and such employment shall be exempt from chapter thirty-one. Except as otherwise provided in section nine B, the commissioner may employ and remove such inspectors, investigators, clerks and other assistants as the work of the department may require. Such number of inspectors as the commissioner may deem necessary shall be men who, before their employment as such, have had at least three years' experience as building construction workmen. The commissioner may require that certain inspectors in the department, not more than seven in number, shall be persons qualified by training and experience in matters relating to health and sanitation.

SECTION 3. Said chapter twenty-three is hereby further amended by inserting after section eleven the following new section and heading: —

DIVISION OF OCCUPATIONAL HYGIENE

Section 11A. In addition to such staff and facilities as may be necessary in the efficient performance of its duties, there shall be employed in the division of occupational hygiene persons having special knowledge of the causes and prevention of occupational diseases. It shall be the duty of the division to investigate conditions of occupation with reference to hazards to health and to determine the degree of such hazards, to investigate and evaluate methods for the control of such hazards, to assist in the preparation of rules and regulations for the preventing of

occupational accidents and diseases, and, in co-operation with the department of public health or otherwise, to promote occupational health and safety education.

(Approved June 25, 1934.)

Pursuant to the provisions of the above act, the Division of Occupational Hygiene came officially into existence on September 23, 1934. The two remaining months of the fiscal year have been devoted to the selection of personnel, securing of quarters, choice and scheduling of laboratory and office equipment, and the many items of detail inevitably incident to the establishment of even a small technical bureau. The size and scope of the division proposed by Commissioner Smith to the legislature last spring have been essentially adhered to.

Personnel.—The personnel of the division will comprise a director, a chemist, an engineer, a senior and a junior clerk and stenographer. Manfred Bowditch, since April 1, 1932, the department's occupational hygienist, has been appointed director of the division. Hervey B. Elkins, Ph.D., formerly research chemist at the Harvard School of Public Health, came to the division as chemist on November 15th. William H. Lehmberg, M.S., has been transferred as engineer from the Division of Industrial Safety, to which he was attached as a special industrial inspector. Miss Grace M. Mara, who served as secretary to the Special Industrial Disease Commission, is the division's senior clerk and stenographer; the junior post is as yet unfilled.

Quarters.—There being no space suited and adequate to the division's requirements available on State property, it was necessary to seek quarters elsewhere. The special needs of the laboratory and the importance of nearness to the Department's State House offices conspired with budgetary limitations to make this a difficult task. Consideration of ten possible locations in both office and residential property convenient to the State House showed conclusively that ground-floor space in a residential structure, because of the availability of water, gas, electric, flue and sewer connections for the laboratory, offered the most economical quarters for the division's purposes. The two lower floors in a house at 23 Joy Street were accordingly selected and a three-year lease negotiated as of November 1, 1934. This location provides three rooms for office purposes, two for the laboratory, and small but adequate space for a microscope dark room and a dust cabinet as well.

Equipment.—The primary purpose for which the Division of Occupational Hygiene has been established is the prevention of occupational disease. It is "to investigate conditions of occupation with reference to hazards to health and to determine the degree of such hazards, to investigate and evaluate methods for the control of such hazards . . ." It has no police powers and operates on an advisory basis only. An essential difference between occupational accident and disease hazards lies in the fact that the latter may be measured and the means for their control prescribed only by persons technically trained in the branches of chemistry and engineering essential to this work, and that they must be equipped with the field and laboratory apparatus and reference material necessary to its prosecution. Estimating the division's needs in these particulars largely on data furnished by the Connecticut Bureau of Occupational Diseases,¹ apparatus for the determination of fume, gas and dust concentrations, as well as chemical laboratory and ventilation engineering equipment, have been selected in such manner as to balance the greatest possible technical efficiency with the modest initial budget of the division. Necessary office equipment has been ordered and an adequate reference library planned.

Service.—The Division of Occupational Hygiene is essentially a service organization. With the completion of its technical equipment, it will be prepared to perform its principal statutory duty, as outlined in the foregoing paragraph. Since the responsibility for working conditions lies primarily with the employer, the chief source of requests for investigatory and advisory service will undoubtedly be the factory owners of the Commonwealth. On receipt of such a request from an employer, relative to an actual or suspected source of ill-health in his establish-

¹ The Connecticut Bureau of Occupational Diseases has in the four years since its establishment gained an enviable reputation for efficient work in the field of industrial disease control. The Connecticut model has been largely drawn upon in the organization of the Massachusetts Division and the generous co-operation of Dr. Gray and his colleagues is gratefully acknowledged.

ment, a member of the staff will visit the factory and, by means of his field apparatus, secure representative samples of the working atmosphere, with such dusts or fumes as may be present. A work analysis, embracing all factors which may have a bearing on the total health situation of the employment, will also be made. Laboratory tests of the atmospheric samples are the next step, after which a report of the findings will be submitted. If a health hazard is found, engineering advice as to the most efficient and economical means of control will be available. The substantial sum annually wasted by industry on ventilation equipment which fails to do the work for which it was purchased should be materially reduced through this service.

While experience in other states indicates that the great majority of requests for investigation and advice will be from industrial employers, the service of the division is of course available, within the limits imposed by its size, to all residents of the State. Industrial workers and labor organizations, insurance companies and their associations, as well as governmental and civic bodies concerned with industrial conditions, all have an interest in the work of the division and their inquiries will be handled in substantially the manner outlined above. It may be noted in this connection that the establishment of the division was the occasion for a joint appeal for legislation believed to be the first in which the Associated Industries of Massachusetts, the State Federation of Labor and the Insurance Federation of Massachusetts have ever officially joined.

Effective control of an occupational disease hazard demands measures based upon complete information on all aspects of the case under consideration. Such factual material will not be freely furnished if the giver, be he employer, worker or insurance carrier, feels that it may at some future time be used to his material disadvantage. To overcome this impediment, the reports of the division's investigations will be rendered with the understanding that they shall not be used as evidence in any action at law or in any workmen's compensation case. While it may not appear so at first sight, such restriction is really entirely fair, for the employer against whom an adverse report may not be used is similarly prevented from using a favorable finding in his own behalf. A provision to this effect in the Connecticut statutes has proved of material aid to the occupational disease work in that state and it is hoped that a like enactment may be secured in Massachusetts.

FINAL REPORT OF THE OCCUPATIONAL HYGIENIST

With the creation of the Division of Occupational Hygiene and the appointment of the department's occupational hygienist as its director, the former position was discontinued. The following report, with those for the years 1932 and 1933, therefore comprises a condensed summary of a thirty-months' activity now merged with and expanded into those of the new organization.

Special Industrial Disease Commission.—The work of the Special Industrial Disease Commission, established on July 12, 1933, came officially to a close with the filing of its report to the legislature on February 1 of this year. As executive secretary to the commission, the occupational hygienist's time was entirely taken up with its affairs until that date, and in large measure for some time thereafter in connection with its legislative recommendations.

The investigatory work of the commission was summarized a year ago. Its report, printed as House No. 1350, a volume of 215 pages, with 55 tables, 14 graphic charts and 24 photographic illustrations, was in large measure the work of the occupational hygienist and was edited by him in full. The four main expository sections deal with these subjects:

- I. Working Conditions in the Granite and Foundry Industries.
- II. Effects of Working Conditions in the Granite and Foundry Industries on the Health of Workers.
- III. Means of Lessening Dust Exposure.
- IV. Legislative and Administrative Aspects of the Occupational Disease Problem.

These are followed by a recommended program for the control of dust diseases in the granite and foundry industries embodied in fifteen bills which propose that legislation be enacted:

1. To authorize the Department of Labor and Industries to make rules and regulations for the health of workers in these industries.
2. To require employers in these industries to secure certificates of compliance with such rules and regulations.
3. To make workmen's compensation insurance compulsory in these and other hazardous industries.
4. To require insurance carriers to insure certificated risks.
5. To require entrance physical examinations of employees in these industries.
6. To require periodic physical examinations of employees in these industries.
7. To restrict compensation for pulmonary disability already compensated or acquired outside the Commonwealth.
8. To extend the regulatory powers of the Department of Labor and Industries to all persons exposed to injury from industrial operations.
9. To enable the Department of Labor and Industries to pay a fee of 50c for each physician's report of occupational disease and prohibit the use of such reports as evidence.
10. To provide for schedule and experience rating for occupational disease risks.
11. To restrict the cancellation of employer liability insurance policies.
12. To establish a Division of Occupational Hygiene in the Department of Labor and Industries.
13. To provide for an occupational medical staff in the Division of Adult Hygiene of the Department of Public Health.
14. To provide for the appointment of a Medical Board of Review.
15. To enable the Department of Industrial Accidents to prepare statistical data relative to occupational injuries.

Of the above legislative proposals, only the first and twelfth were favorably acted upon by the 1934 legislature. The department was instructed to make rules and regulations for the health of workers in the granite industry and the Division of Occupational Hygiene was established.

Upwards of 350 mail requests for the commission's report have thus far been filled from the occupational hygiene office alone. The majority have been from organizations and individuals interested in the legislative, insurance and preventive aspects of the silicosis problem, principally in the United States, but also in Canada, England, Germany, South Africa and Australia.

Granite Dust Control Project.—The following statement was issued by the occupational hygienist on September 21, 1934:

No more pressing occupational disease problem exists in the Commonwealth than that of the pulmonary diseases (silicosis, silico-tuberculosis) caused by dust in the granite industry. The question of dust control in the large granite plant has been notably answered by the recent installation of exhaust equipment in the new shop of the H. E. Fletcher Company at West Chelmsford, Mass. This installation, however, embodies features quite beyond the range of the small and none-too-adequately capitalized establishment typical of the industry in this State, and there is no exaggeration of the dual problem still facing us in the statement that, if the granite worker is to survive, we must remove the killing dust in which he works; if the smaller industrial unit is to survive, we must find a way to do this at minimum expense.

Chapter 44 of the Resolves of 1934 directs the Department of Labor and Industries "to make reasonable rules, regulations and orders applicable to all persons engaged in said (granite) industry for . . . the prevention of industrial or occupational diseases therein." Such rules, regulations and orders, dealing principally with dust control, must shortly be made and enforced. Until this is done (and for a time thereafter), dust disease will continue to levy its ever-increasing tax upon every worker, employer and insurer in the industry. When it is done, the ability of the industry to meet the newly

imposed conditions will be proportional to the extent to which the above stated problem has been solved.

As a means of achieving results in this field more quickly than would otherwise be possible, it is proposed that the Emergency Relief Administration be asked to establish a work project wherein a small group of engineers, technicians, draftsmen, sheet metal and granite workers will be engaged for an estimated period of six months to study, design and construct, under adequate supervision and with necessary equipment, devices for the removal and collection of the dust incident to the various operations of the smaller granite establishment with the greatest efficiency consistent with moderate cost.

Preliminary discussion with officials of the E.R.A. indicates their probable approval of such a project. If established, the E.R.A. will pay the wages of all workers engaged in the project, as well as those of a competent foreman or supervisor. Responsible sponsorship is required. This, and close supervisory co-operation, will be provided by this department. An apparently satisfactory location has been found in a typical small granite establishment, at present closed, in the city of Quincy. Equipped with air compressor and the usual tools, it is offered rent-free, under reasonable conditions, for the estimated period of the project. Two major items of expense, wages and rent, are thus accounted for.

Probable further expense of the project, depending on its duration, weather conditions and the possibility of securing certain equipment second-hand or on a loan basis, is estimated as follows:

Shop equipment	\$300 to \$400	Fuel	\$100 to \$150
Exhaust equipment	300 to 400	Drafting equipment	100
Materials	300 to 400	Heating equipment	100
Repairs to building	100 to 200	Sundries	100
Power, light	100 to 150		
Total			\$1,500 to \$2,000

This must be met from sources other than the E.R.A. The granite employers, granite workers, workmen's compensation insurance carriers and public and industrial health organizations suggest themselves as groups primarily interested. With results of such importance to be anticipated, the raising of so small a sum seems hardly open to question.

As the year closes, assurance of financial support has been received from the Massachusetts, New Hampshire and Vermont tuberculosis associations and the Granite Cutters' International Association of America. The granite employers and various insurance companies have indicated interest and it is believed that a sum sufficient to warrant active prosecution of the project will be available at an early date.

New England Safety Conference. — The First Annual New England Safety Conference and Thirteenth Annual Massachusetts Safety Conference, held in Boston on April 30 and May 1, 1934, included a section on occupational diseases, of which the occupational hygienist served as chairman. An audience of some 300 interested industrialists and others heard papers on "Toxic Solvents in Massachusetts Industries" by Stuart W. Gurney of the Liberty Mutual Insurance Co., "Industrial Dusts and Their Control" by Theodore F. Hatch of the Harvard School of Public Health and "Workers in Dust" by Dr. Alton S. Pope of the Department of Public Health, and participated in their discussion.

Occupational Health Council. — The membership of the Occupational Health Council continues to be a source of valuable advice and assistance. Due to the untimely death of Edwin E. A. Fisher on March 4, 1934, there are again the original number of 22 members.





